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TACS COUNTY COOPERATIVE HEALTH ASSOCIATION
1942-43

By
T. Wilson Longmore
Social Science Analyst
and
Theo L. Vaughan
Social Science Analyst

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CONTENTS

	Page
Chapter I. INTRODUCTION	1
Chapter II. MEDICAL CARE BEFORE ORGANIZATION OF HEALTH ASSOCIATION	2
Chapter III. DESCRIPTION OF THE TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION	6
Organizational structure	6
Membership composition and selection	10
Other characteristics	12
Mobility	12
Schooling	13
Living conditions	13
Chapter IV. ANALYSIS OF SERVICES AND COSTS DURING THE FIRST YEAR OF OPERATION	15
Scope and standard of service	15
Personnel and hospital facilities	17
Physicians	17
Dentists	18
Hospitalization	18
Laboratory and X-ray technicians;	
physical therapists	19
Pharmacists	19
Nurses	19
Preventive services	19
Periodic health examinations	19
Immunizations	20
Health education	20
Therapeutic care	20
Clinic care	20
Hospital care	32
Cooperation with Proctor Eye Clinic	33
Dental	34
Volume of services	34
Incidence of sickness and injury	35
Costs	37
Method of determining family fee	38
Chapter V. WHAT MEMBERS THINK ABOUT THE HEALTH ASSOCIATION	38
Participation in and knowledge of the health association by members	38
Opinions of the members in regard to health services	40
Opinions of members in regard to adequacy of care	44
Opinions of nonmembers in regard to the association	45

MAR 25 1946

	Page
Chapter VI. INTERPRETATION AND APPRAISAL	45
General	45
Salient features	46
Sociological factors involved	46
Steps in organizing the Taos County	
Cooperative Health Association	48
Leadership	48
Guiding principles	49
Scheme of organization	49
Adequacy of the service	50
Effects of the program	51
Problems	51
Appendix. METHOD	53
Selecting the sample of members	53
TAOS COUNTY CULTURE	56
Development of the Taos County Cooperative	
Health Association	62
SUMMARY OF THE TREASURER-MANAGER'S ANALYSIS	
OF THE FIRST YEAR'S OPERATION OF THE TAOS	
COUNTY COOPERATIVE HEALTH ASSOCIATION	68

TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION, 1942-43 1/

T. Wilson Longmore, Social Science Analyst

and

Theo L. Vaughan, Social Science Analyst

Chapter I

INTRODUCTION

This report analyzes the first year's operation of the Taos County Cooperative Health Association and thus offers practical evidence of how rural people may approach a solution of their health problems. Before October 1942, Taos County was meeting its health needs in much the same way as is most of rural America. After that date, however, approximately one-third of the county's families were organized cooperatively to obtain for themselves more adequate medical care at a price they could afford to pay. 2/ Chapter I briefly reviews the essentials of the health project, the people involved, and the specific purpose of the study. The medical care situation before the association was organized is an important starting point for any discussion of the effects of the cooperative endeavor (ch. II). Then, following a detailed description of the membership, organizational structure, personnel, and hospital facilities (ch. III), an exhaustive analysis of the services and costs of the first year of operation is made (ch. IV). Finally, an interpretation and appraisal of the first year of operation completes the report (ch. V).

The people of Taos are representative of the rather large segment of our population which is often referred to as Spanish American. 3/ Taos is one of the oldest settlements in New Mexico, and therefore one of the oldest in the United States. Spanish settlers came to Taos as early as 1615. Taos is geographically isolated by the Sangre de Cristo range of mountains and the gorge of the Rio Grande. Community life is dominated by the village type of settlement, based upon a subsistence agriculture carried on in the irrigable valleys.

1/ This is the second in a projected series of seven manuscripts which will analyze the experimental health programs in Taos County, New Mexico, Newton County, Mississippi, Walton County, Georgia, Cass County and Wheeler County, Texas, Nevada County, Arkansas, Hamilton County, Nebraska. The report on Newton County, Mississippi, was issued August 1944. The study on which this report is built was conducted under the supervision of Douglas Ensminger, Bureau of Agricultural Economics.

2/ How the people of Taos developed a cooperative health program is described in the Appendix, p. 62.

3/ For a detailed description of Taos culture see Appendix, p. 56.

Health conditions among the Taosenos are among the worst in the country and are related to the generally low economic status of the people. As a result of the war, the five physicians who were practicing early in 1942 had fallen to three in 1943, and standards of medical care were deteriorating at the time the association began to function.

The cooperative principle has been used by the people of Taos County to provide medical, hospital, and dental care. Local interest in health needs led to the formation of the Taos County Cooperative Health Association, which began operation on October 1, 1942. Membership during the first year of operation numbered 1,145 families, or 5,935 individuals. Services rendered during the first year cost a total of \$44,500, or \$38.03 per family. In addition, the association had a capital investment of \$29,494. A grant of \$60,555, or 81.4 percent of the total expenses of the first year's operation, was made to the association by the Farm Security Administration. Local contributions of cash and property accounted for the remaining 18.6 percent, or \$13,793. The average assessment fee for the first year amounted to \$3.75 per family; the minimum fee was \$1; and the maximum was \$32.

Three community health centers -- Penasco, Questa, Taos -- are located strategically in the county. These centers are focal points for medical care and health education. They are staffed by a full-time registered nurse, and doctors and a dentist on rotating schedules. Hospital care is available to members at Taos, Taos Pueblo, and Embudo. Drugs are supplied through prescription to private drug stores or by the association dispensary. Outside specialists are contracted for and paid out of association funds. Ambulance service to and from the health centers is available to members.

Chapter II

MEDICAL CARE BEFORE ORGANIZATION OF HEALTH ASSOCIATION

Before joining the association, almost three-fourths of the families (72 percent) called a doctor during sickness of one of its members. 1/ The remaining 28 percent of the families either went without medical aid or relied upon a medicine man (table 1). This practice was not common, however, as only seven families reported calling in a medicine man during sickness before joining the association.

1/ For a detailed discussion of the sample upon which these figures are based see Appendix, p. 53.

Health practices are often guided by medieval traditions and superstitions. ^{2/} Investigations, made locally, indicate that 62 percent of the deaths during 1941 were not attended by physicians, nor were death certificates issued. From 1937 to 1939, 64 percent of the reported deaths were shown to be from unknown causes. Of 1,629 births during the same period, 401 were delivered by physicians, 1,122 by midwives, and 103 by other persons. The infant mortality rate, 107 per thousand live births, was the highest in the United States.

Table 1.- Attendant during sickness of family members prior to joining the Taos County Cooperative Health Association

Health service area:	Total	Physician	Medicine man or no medical attendant
Number:Percent:	Number: Percent:	Number : Percent	
Penasco	: 40 100.0	25 62.5	15 37.5
Questa	: 29 100.0	18 62.1	11 37.9
Taos	: 49 100.0	42 85.7	7 14.3
Total	: 118 100.0	85 72.0	33 28.0
: Chi-square = 7.78, df = 2, P = 3%			

Source: Sample Survey, November-December 1943.

A marked difference in the pattern of medical care between the health service areas is observed (table 1). Families in the Taos area used physicians more during sickness than did families of either Penasco or Questa. This is explained, in part, by the fact that physicians have been practicing at Taos village for some years, thus making such services more accessible to families in this general area. No doubt the relatively greater isolation from medical care of both Penasco and Questa places those areas at a disadvantage in respect to physicians. None of the families reporting the attendance of a medicine man during sickness lived in the Taos area.

During childbirth it was customary in the majority of families for a midwife to attend the mother (table 2). Families in the Taos area relied less upon midwives than did families in the Penasco or Questa areas. Here again relative accessibility to physicians at Taos probably played an important part in these differences.

^{2/} Cf. George I. Sanchez, Forgotten People, The University of New Mexico Press, Albuquerque, New Mexico, 1940, p. 34-5.

Table 2.- Attendance of mothers at childbirth by physicians or midwives before joining the Taos County Cooperative Health Association

Health service area	Total		Midwife only		Doctor only		Midwife or doctor	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Penasco	36	100.0	22	61.1	4	11.1	10	27.8
Questa	26	100.0	21	80.8	2	7.7	3	11.5
Taos	1/ 46	100.0	20	43.5	16	34.8	10	21.7
Total	1/ 108	100.0	63	58.3	22	20.4	23	21.3

Chi-square = 14.007, df = 4, P = < 1%

1/ Does not include 1 case in which no information was available.

Source: Sample Survey, November-December 1943.

Most of the families had children delivered at home before joining the association (table 3). Approximately 1 mother in 25 went to the hospital for delivery. Families in the Penasco area were more accustomed to using hospital services at childbirth than were those in either the Questa or Taos areas. This fact, although not easily explained, may be due in part to the accessibility to Embudo Presbyterian Hospital at Dixon and the educational programs sponsored by this hospital. The additional fact that it was relatively easy for the families near Taos to get a doctor to come to the home may be a possible explanation as to why Taos families did not make more use of Holy Cross Hospital.

Table 3.- Place of delivery for children before joining the Taos County Cooperative Health Association

Health service area	Total		At home		Hospital		Home or hospital	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Penasco	36	100.0	26	72.2	2	5.6	8	22.2
Questa	26	100.0	25	96.2	1	3.8	0	0.0
Taos	1/ 46	100.0	44	95.6	1	2.2	1	2.2
Total	1/ 108	100.0	95	88.0	4	3.7	9	8.3

Chi-square = 14.790, df = 4, P = < 1%

1/ Does not include 1 case in which no information was available.

Source: Sample Survey, November-December 1943.

Almost one family in five reported one or more deaths because of lack of medical care before joining the association. Typical comments in regard to this item by persons being interviewed were as follows:

- "Baby died because we couldn't get to the doctor." (Schedule 5.)
- "Corelia die because no get doctor." (Schedule 48.)
- "He got sick in Wyoming and came home and we couldn't get medical care in time." (Schedule 55.)

"Little boy that I had, there was no way to get a doctor here, so he die of lack of care." (Schedule 62.)

"Some of my little ones get sick and die. We couldn't get a doctor here." (Schedule 67.)

"In 1918, I lose boy 13 years old on account of the scarcity of doctors. Couldn't get out." (Schedule 79.)

"One baby died because doctor did not come from Alamosa. Fifteen days old when she die." (Schedule 104.)

Unfortunately, it is impossible to relate the reported number of deaths for lack of medical care to the total number of deaths by health service areas, as data pertaining to the latter are not available. If all deaths were proportionate to number of families in the sample by health service areas, families in the Penasco area reported almost two and a half times more deaths because of lack of medical care than did families in the Taos area; whereas families in the Questa area reported about twice as many deaths from lack of medical care as did families in the Taos area (table 4). Perhaps isolation and consequent inaccessibility to medical care, greatest in the Penasco area and next in the Questa area, contributed significantly to the number of deaths that resulted from lack of medical care.

Table 4.- Families reporting deaths for lack of medical care before joining the Taos County Cooperative Health Association, by health service area

Health service area	Total		Deaths		No deaths	
	Number	Percent	Number	Percent	Number	Percent
Penasco	40	100.0	10	25.0	30	75.0
Questa	29	100.0	6	20.7	23	79.3
Taos	1/ 49	100.0	5	10.2	44	89.8
Total	1/ 118	100.0	21	17.8	97	82.2

1/ Does not include 1 case in which no information was available.
Source: Sample Survey, November-December 1943.

Of the various services offered during the first year, medical care constituted the most general service received (table 5). Dental service was received by more than one-third of the families and hospitalization by more than one-fourth. But it is noteworthy that, during the first year, 14.3 percent of the families received none of the specified services.

Table 5.- Number and percentage of families in sample receiving specified service during the first year's operation of the Taos County Cooperative Health Association, by health center, 1942-43

Service	Penasco		Questa		Taos		Total	
	:Percent		:Percent		:Percent		:Percent	
	:Number:	of total	:Number:	of total	:Number:	of total	:Number:	of total
Medical care	: 33	82.5	25	86.2	39	78.0	97	81.5
Dental care	: 13	32.5	12	41.4	16	32.0	41	34.5
Hospitalization	: 15	37.5	8	27.6	9	18.0	32	26.9
Eye service	: 5	12.5	2	6.9	3	6.0	10	8.4
Specialist	: 0	0.0	0	0.0	1	2.0	1	0.8
Drugs (prescribed):	0	.0	0	.0	2	4.0	2	1.7
No service received:	7	17.5	2	6.9	8	16.0	17	14.3
:								
:								

Source: Sample Survey, November-December 1943.

Chapter III

DESCRIPTION OF THE TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION

Organizational Structure

A simple statement of purpose might be that the Health Association was organized to obtain medical services for members of low-income families and to engage in any other business which will promote the health of such low-income families, including the financing of such activities. ^{1/} But in a broader sense the Health Association has set itself the task not only of securing a minimum of medical care for low-income families but also of continued improvement in standards of care consistent with present-day medical knowledge and skills, and so to coordinate the gamut of services that high quality of care can be offered at a price that most families can afford to pay.

The governing body of the association is the Board of Directors which is composed of seven members of the association. Continuity on the board is assured by electing two directors for a term of 2 years, two for a term of 3 years, and three for a term of 1 year. ^{2/}

^{1/} Articles of Incorporation, Article I.

^{2/} By-Laws, Article VI, Sections 1 and 2.

The principal duties of the Board of Directors may be outlined as follows:

- (1) To select and delegate authority to management.
- (2) To determine policies for guidance of management.
- (3) To control expenditures by authorizing budgets.
- (4) To keep members fully informed as to the business of the association.
- (5) To cause audits to be made at least once each year or oftener, and reports thereof to be made directly to the board.
- (6) To study requirements of the members and to promote good membership relations.
- (7) To prescribe the forms of contracts between members and the association. 3/

The board also elects by ballot from among its own number a president, a vice-president, and a secretary, each for a term of 1 year. The president is the executive officer of the association and as president has such powers and performs such duties as may be properly required of him by the board. 4/ The board contracts for the services of a treasurer-manager and fixes the terms and conditions of employment. During the first year of operation the board met more than once a month and has been an active body in furthering the business of the association.

The duties of the treasurer-manager are outlined as follows:

- (1) To have charge of direct management of the association's business in accordance with the instructions of the Board of Directors and under the supervision of the board.
- (2) To engage and discharge employees of the association subordinate to him in accordance with authority given by the board.
- (3) To keep accurate books of the business of the association and to submit them, together with all files, records, and inventories, etc., for inspection at any time.
- (4) To give aid, advice, and recommendations to the board in the preparation of budgets, and to furnish to the board a monthly statement on the condition of the association's business, and submit an annual report at the regular meeting of members.
- (5) To assist the board in formulating policies and to attend to such other duties and offices as the board may require. 5/

3/ By-Laws, Article VI, Section 1.

4/ By-Laws, Article VII, Section 1. For duties of vice-president and secretary see Sections 2 and 3.

5/ By-Laws, Article VII, Section 4.

All evidence points to a free exchange of opinion between the treasurer-manager and the Board of Directors during the first year. The treasurer-manager attended most of the meetings of the board and entered freely into the proceedings. He reported directly to the board on general business management and also on the medical services. However, the association employed a medical director who administered the departments of medical service.

Actually, the administrative authority of the association was centralized in an executive who was also treasurer-manager and who delegated the administration of the professional services to a medical director (fig. 1). Five functional areas of administration existed: (1) medicine, (2) nursing, (3) hospitalization, (4) dentistry, and (5) business management.

Medical personnel during the first year included a field medical director, a staff physician, two medical internes and a dentist. The field medical director had some administrative responsibility in respect to professional services at the ~~three~~ hospitals, in prescription of drugs, and in referring cases to the Proctor Eye Clinic and to specialists in surgery. The Farm Security Administration functioned in a supervisory, financial, and consultative role to the Board of Directors and the treasurer-manager.

Nursing personnel included a supervising nurse and three full-time clinic nurses. Each clinic nurse had one assistant to help in routine work and to drive the ambulance.

The personnel of Holy Cross Hospital consisted of three graduate nurses and one nurses' aide. No permanent doctor was in charge although the staff physician acted in that capacity and performed the necessary surgery. Embudo Presbyterian Hospital had a doctor in charge, five graduate nurses, one dietitian, four nurses' aides, and two office workers. Thomas P. Martin Hospital had a doctor in charge, two graduate nurses, and three nurses' aides, but its main function is to provide hospital care to the Indians of Taos Pueblo.

The dental staff consisted of one clinic dentist and one referral dentist.

In addition to the treasurer-manager, the business staff included an administrative assistant, a secretary, a part-time field assistant, and a maintenance supervisor.

All personnel, including physicians, were paid on a straight salary basis. The full-time field medical director received a salary of \$4,800, plus \$600 for travel. The staff physician on a part-time basis was on a salary of \$3,000 per year, without travel allowance.

Clinic nurses were paid on a straight salary basis of \$1,800 per year. Interns received a salary of \$900 per year and living expenses.

The clinic dentist was on a straight salary basis, receiving \$3,900 per year, plus \$600 for travel.

The business manager received \$2,500 per year, plus \$300 travel expenses.

Clinics were located at Penasco (population about 300), Questa (population about 500), and Taos (population 965). Branch clinics are contemplated at Costilla and Ranchos de Taos. Each clinic had a full-time graduate nurse who received patients on days when the doctor was not present and who also made home visits. The doctor conducted clinics 2 half-days a week at each clinic. In addition, the doctor could be seen after 3 p. m. at Taos on 4 days each week.

The clinic nurse was on hand from 9 a. m. to 12 m. each week-day morning. The dentist was available 1 day each week at Penasco and Questa, and 4 days at Taos. Telephone service was available at all times. The clinic doctor and dentist operated out of Taos, traveling to each clinic by automobile.

Questa and Penasco health centers had a clinic nurse for the entire period of 12 months and nursing services at Taos were available during about 5 months of the first year's operation.

The service area of Penasco health center in the first year included 14 small communities in the southern part of the county, comprising approximately one-fifth of the total population of the county. Questa health center included in its service area six small communities in the northern part of the county with about one-fifth the population of the county. Taos health center included 20 communities in its service area and approximately three-fifths of the population of the county. However, the total association membership of 5,935 was divided between the health centers as follows: Penasco, 29.9 percent; Questa, 25.8 percent; and Taos, 44.3 percent.

Membership Composition and Selection

As the Taosenos are descendants of the early Spaniards who fought their way up from Mexico and the Indians who inhabited the land, it is not surprising that more than two-thirds of the families interviewed (68.1 percent) spoke only Spanish in the home. None spoke English only, but 31.1 percent spoke both English and Spanish. All 119 of the sample families were Spanish-American.

Age and sex are important considerations when health factors are concerned. For purposes of contrast and analysis the age-sex pyramid of the membership sample is compared with those of the United States total population and Taos County at the census of 1940 (fig. 2).

The principal differences may be summarized as follows: (1) the association and Taos County populations include large proportions of children in contrast to the total United States population; (2) the association and Taos County have low percentages of their population in the ages 15-45, or the "productive" years of life; and (3) the association and Taos County contain a disproportionately small share of aged persons when compared with the total United States.

United States, 1940
(U. S. Census)

Association Membership, 1943
(Sample)

Taos County, 1940
(U. S. Census)

Age Period

Age Period

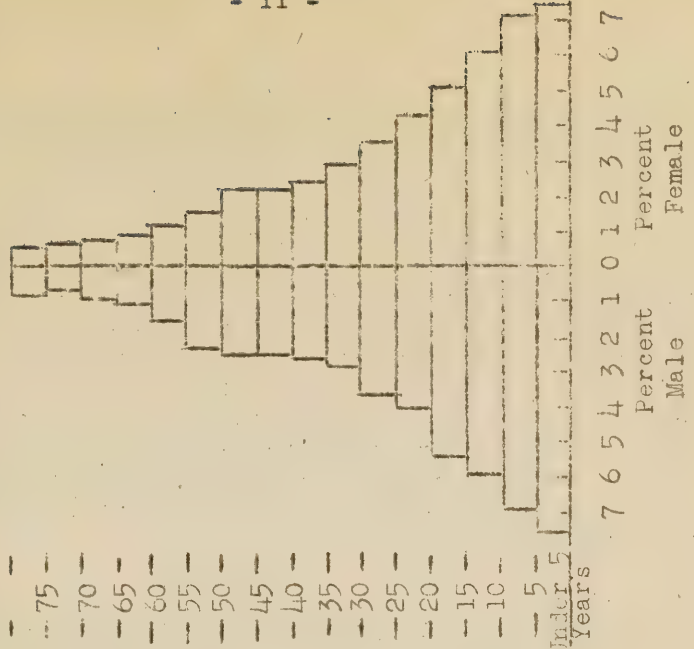
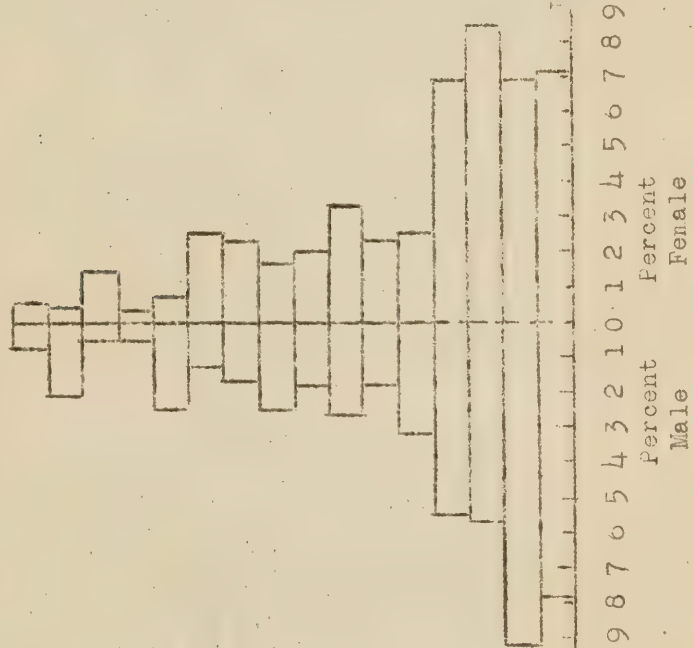
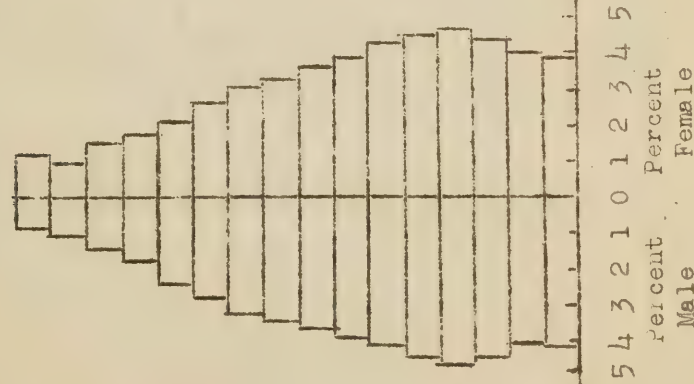


Figure 2.- Age and sex pyramids for United States population, association membership, and Taos County

The sex ratio of the association population (number of males to 100 females) was 99 compared with 101 for the total United States and Taos County populations.

The original By-Laws, adopted October 21, 1942, stipulated that the association would admit as members (only persons who are rural dwellers) persons who reside in the territory serviced by the association and who were approved for membership by the Board of Directors. 6/ In amending the By-Laws on July 9, 1943, the words "only persons who are rural dwellers" were omitted. These were the only stipulations placed on membership during the first year of operation and under them every family in Taos County became eligible for membership if they met certain economic requirements. Only families with less than \$1,200 "gross" or "net annual" income were accepted, meaning total cash income of the family during the preceding year.

According to the original By-Laws only family heads engaged in "agricultural pursuits" were eligible to share in the benefits from the grant money from Farm Security. 7/ Of the 119 sample families, 5 reported both nonagricultural work and sharing in grant money. They may be briefly summarized as follows: One elderly widow dependent upon children, two industrial defense workers, one head engaged in lumbering, and one woman working in a convent. This does not indicate any widespread or flagrant violations of the requirements placed upon grant money. In a society so homogeneous as that of Taos it is often difficult to distinguish between agricultural and nonagricultural dependency because of the long history of absolute dependence upon agriculture for subsistence. Even the postmaster, priest, school teacher, minister, etc., may have a vital interest in the agricultural community, and excluding such persons from benefits of the program is purely arbitrary.

Other Characteristics

Mobility.- Of tremendous importance to family life and stability is the high mobility of the head of the family seeking economic opportunity. More than one-third of the family heads (34.5 percent) were working away from home at the time of interview and an additional 21.0 percent were away at some period of the year. Only 39.5 percent of the families worked the entire time on the farm. Of the 66 family heads who worked off the farm, 78.8 percent worked outside the State. Almost one-third (32.7 percent) of the heads outside the State were working in Wyoming, 23.1 percent in Colorado, 21.2 percent in California, and 9.6 percent in Utah. The remaining 9.6 percent were in Arizona, Nevada, and Kansas. Information was not available for two heads. A majority (53.9 percent) of the heads working in other States were engaged in agriculture as laborers; the remainder (42.3 percent) were in industrial work. No information was available for two heads.

6/ By-Laws adopted July 9, 1942, Article IV, Section 1.

7/ By-Laws Article IV, Section 3.

Schooling.- Although it must be acknowledged that formal schooling is a poor index of educational attainment in the more or less bookless society of the Taoseno, it becomes an important consideration when an effort is made to bring these people into the larger community with its modern requirements. Therefore, it is significant that less than one-fifth (18.4 percent) of the heads of families had completed the eighth grade or more, and 41.2 percent had completed less than 4 years of school. Wives of the heads of families had completed slightly more grades on the average than heads of families, 26.0 percent finishing eight grades or more.

However, in the great majority of cases schooling was entirely in Spanish. An illustration of what this means follows: Almost all family interviews were carried on in Spanish but the person interviewed was asked to state a preference between English and Spanish for the interview. In one instance a young wife, who indicated that she had completed 9 years of school, chose to receive the questions in English. After six or eight questions had been attempted it became apparent that they were unintelligible to her. She finally admitted as much and asked that the interview start over in Spanish. (This is not an unusual case.)

Living Conditions.- Four indexes of rural living were checked for each family interviewed as follows: (1) source of drinking water, (2) type of toilet, (3) screens on the home, and (4) number of persons per room.

It is now universally recognized that many diseases may be transmitted through the medium of water. The diseases that may be disseminated in this way are, for the most part, those wherein the infectious material is to be found in body discharges. Body excreta then becomes the chief factor entering into the problem of water pollution. The factors of source of family drinking water and toilet facilities are therefore important considerations in prevention of filth-born diseases (tables 6 and 7).

Table 6.- Source of family drinking water for members of the Taos County Cooperative Health Association, 1942-43

Source	Number	Percent
Open well	75	63.0
Protected well	4	3.4
Irrigation ditch	27	22.7
River	6	5.1
Piped water	3	2.5
Spring	3	2.5
No information	1	0.8
Total	119	100.0

Source: Sample Survey, November-December 1943.

Table 7.- Toilet facilities of member families
of the Taos County Cooperative Health
Association, 1942-43

Type	Number	Percent
Pit privy (sanitary)	21	17.7
Common privy	94	79.0
Flush toilet	3	2.5
None	0	0.0
No information	1	.8
Total	119	100.0

Source: Sample Survey, November-December 1943.

The common housefly plays a **considerable** part in the spread of many infections, and especially as concerns those intestinal diseases that can be transferred from one person to another. Although screening against flies does not insure a complete measure of protection from these diseases, it does help to mitigate the problem. It may indicate also the amount of public interest toward the insect as a spreader of disease (table 8).

Table 8.- Screens on the houses of members of the
Taos County Cooperative Health Association,
1942-43

Screens	Number	Percent
Yes	66	55.5
No	51	42.8
No information	2	1.7
Total	119	100.0

Source: Sample Survey, November-December 1943.

Perhaps the most significant of these indexes is the index of overcrowding in the home (table 9). Forty-two percent of the cases reported 1.51 persons or more per room. The average household in the sample contained 5.2 persons; the average house had 3.6 rooms. What this means in terms of health may be well illustrated by one experience during the minor influenza epidemic which occurred in December 1943. The supervising nurse made a call on a member family. At first only one of the six children in the household had contracted a cold but when the nurse made her second visit she found all six children sick in bed, not in six beds but in one bed. Two of the six were taken to the hospital immediately suffering from pneumonia.

Table 9.- Number of persons per room for member families of the Taos County Cooperative Health Association, 1942-43

Persons per room	Number	Percent
1.0 or less	44	37.0
1.01 - 1.50	24	20.2
1.51 - 2.00	23	19.3
2.01 or more	27	22.7
No information	1	0.8
Total	119	100.0

Source: Sample Survey, November-December 1943.

Chapter IV

ANALYSIS OF SERVICES AND COSTS DURING THE FIRST YEAR OF OPERATION

Scope and Standard of Service

Primary emphasis during the first year of operation was on diagnosis and treatment of disease. In almost all cases, patients were required to visit one of the clinics to secure the services of a physician. Home care was limited to visits by clinic nurses. In case the patient was unable to go to the clinic, he or she was brought in by ambulance.

All hospitalized patients were under supervision either of the clinic physician or the hospital doctor. Limited dental care was given at the various clinics or by referral. Hospitalization up to 15 days was available to each patient.

Medicines were given on prescription only. Members and dependents were entitled to eye examinations, treatments, and glasses only on referral to the Proctor Eye Clinic. Ambulance service was available at the clinics, for at least a part of the year. Special surgery was available when required through a Fellow of the American College of Surgeons in Santa Fe. Orthopedic services were available to children with crippled limbs, harelips, cleft palates, etc., on referral to the county welfare department. Active tuberculosis cases and communicable disease services were also referred to the County welfare department.

In all professional matters the medical staff was free to regulate and discipline itself, subject only to the final approval of the governing body. Standards in hiring professional personnel were predetermined by the American Medical Association through its national, state, and county societies. It happened that the medical director of the association

was at the same time president of the Taos County Medical Society. Standards of the American Medical Association have barred one local osteopath-optometrist from participation in the program of the local association.

However, no formal stipulation of qualifications, character, and competence for physicians and assistant personnel were available; nor were the standards of professional work and prescribed procedures for effectuating and enforcing these standards clearly defined.

During the first year little time has been available for improving professional training after appointment. Staff meetings have been held but discussion has centered on administrative details. Some investigative work has been encouraged, particularly in the dental field where a school survey of health needs was conducted in cooperation with the State Dental Society and Health Department. Recently, surgical demonstrations have been held by outstanding surgeons.

Little opportunity for rest and recuperation from long hours of work have been given to the professional staffs. It has been almost impossible to limit the number of patients accepted for care by the association. It may be said that no less than half an hour should be allowed for the general examination of a new patient and 15 minutes for a revisit. Obviously, such allowances have not been made when as many as 20 patients have been seen by the clinic physician in a half day. Later the clinic day was increased to a full 8 hours and this alleviated the situation somewhat.

Professional supervision of the group's medical service is headed up in the medical director and the supervising nurse. Monthly meetings of the clinic staff were held to review the various problems that arose and to evaluate the quality of service being rendered.

One of the most frequent objections leveled at group medical programs has been that patients do not have "free choice" in selecting a physician. Little trouble with this consideration was experienced by the association inasmuch as only one general physician has been available. The factor of "free choice" seems not to have aroused any feelings on the part of members. This may be partly explained by the fact that except in dire necessity, a large majority of the members and their dependents had never availed themselves of the services of physicians before joining the association. It must be remembered, also, that for many years Taos County had only one physician, which meant that families took what they could get, not what they may have chosen. Some members have indicated a preference for the local osteopath and a few have even gone to him although the association does not pay for his services.

Furthermore, the problem of continuity of care has not been raised simply because the patient was continuously under the supervisory care of one general physician. Only when the patient was admitted to a hospital was supervision shifted and this has been accomplished satisfactorily.

The association has been beset with problems of securing sufficient personnel during the first year primarily because of the war. The county has lost two of its five prewar doctors and has not been able to replace them. Offers have been made to outside physicians but, for one reason or another, these offers have not been accepted. The lack of a long-term plan has handicapped the management in contracting with doctors.

The shortage of personnel has placed an undue strain on those employed by the association and this has created unfavorable personnel standards. A turn-over of 100 percent in nursing personnel during the first year has jeopardized the continuity of the program. Nurses have been required to expend their energy doing nonprofessional work such as ambulance driving.

After the clinic dentist was hired in February 1943 he suffered a disabling accident that disrupted the dental care program.

Continuity in the program has been preserved in the main by the continuous service of the treasurer-manager, and the field medical director.

Personnel and Hospital Facilities

A comparison of the actual personnel and hospitalization requirements of the 5,935 persons covered in the membership of the association and ideal standard requirements according to Lee and Jones ^{1/} allows some appraisal of the adequacy of the association's personnel and hospital facilities for the first year.

Physicians.- It is estimated by Lee and Jones that satisfactory medical care, including prevention, diagnosis, and treatment, requires a ratio of 1 physician to about every 700 persons, if the sex and age distribution is "average." ^{2/} On this basis the 5,935 members and dependents covered in the program of the association would need eight physicians in comparison with the two actually available during the first 12-month period. These estimates, however, are based on individual practice, and make no allowances for the greater efficiency of group organization. Allowing for this factor, using ratio of 1 physician to 800 persons covered, an estimate of 7 physicians is probably generous for the requirements of the association.

Perrott and Davis ^{3/} estimate that nationally the average number of persons per physician will reach 1,500 early in 1944. If this figure is used as a minimum standard of comparison, four physicians would have

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- ^{1/} Estimates derived from Roger I. Lee, M. D. and L. W. Jones, "The Fundamentals of Good Medical Care," Publication Number 22 of the Committee on the Costs of Medical Care.
 - ^{2/} That is it compares favorably with the age and sex composition of the total U. S. population.
 - ^{3/} T. St. J. Perrott and Burnet M. Davis, "The War and the Distribution of Physicians," Public Health Reports, Vol. 58, No. 42, October 15, 1943, p. 1552.

been required for the association members, or twice as many as were hired by the association during its first year. Clinic physicians served the whole community to some extent. For instance, it is known that 8 percent of the clinic attendance during the first year was by nonmembers. However, if the two doctors in charge of the hospitals and the specialists in surgery and ophthalmology are included in the number of physicians, fairly adequate personnel in this category were available during the first year.

Regarded from an ideal standpoint, at least 12 different specialties are required if a full range of medical care is to be provided. 4/ The resident physician at Holy Cross Hospital, who was employed by the association, took care of all medical, obstetrical, and surgical cases. Neither of the two full-time physicians employed were specialists, but the association arranged for the services of an ophthalmologist through the Proctor Eye Clinic at Taos and limited use was made of other specialists in surgery at Santa Fe and Albuquerque. Surgical cases were contracted for by the association. Two Mexican interns were added to the medical staff at the beginning of the second year of operation.

Dentists.- According to Lee and Jones a group of 5,935 persons would require approximately six dentists, one dental X-ray technician, two dental hygienists, and one dental laboratory technician. During the first year's operation the association employed a full-time dentist for approximately 4 months and arranged for the services of one referral dentist for the entire period.

Hospitalization.- For an average population, a standard of 1.4 general hospital days annually per person is set forth by Lee and Jones. This would mean 8,300 hospital days per year for the association, not including approximately 850 days for newborn infants. Assuming an average occupancy of 80 percent, such care would require 29 beds and 3 bassinets. Actually, the 3 hospitals, with which the association had agreements, had a total of 78 beds and 20 bassinets. But these hospitals were also available to the public at large, thus cutting down on available facilities to association members and dependents. As association members and dependents comprised approximately 40 percent of the 1943 population of Taos County, it is reasonable to assume that hospital facilities were made available in proportion to the population covered. On this basis 31 beds and 8 bassinets were available as against requirements of 29 beds and 3 bassinets. 5/

4/ Dean A. Clark, M. D., and Katharine G. Clark, Organization and Administration of Group Medical Practice, Twentieth Century Fund, October 1941, p. 85.

5/ On the basis of the 10-percent sample of membership it was found that two-thirds of the total hospital days of the association were allocable to Holy Cross Hospital and approximately one-third to Embudo Presbyterian Hospital, with a negligible number at Thomas P. Martin Hospital. Using these facts as a basis of calculation it is found that only 28 beds and 4 bassinets were available as against requirements of 29 beds and 3 bassinets.

Laboratory and X-ray Technicians; Physical Therapists.- If all desirable laboratory work is performed, about 30,000 laboratory procedures annually would be required by a group of 5,935 persons. Of course, many of these may be performed by the public health authorities. For diagnosis and treatment of disease, it may be expected that about two laboratory procedures a year will be needed for each individual covered, or 12,000 for the association. One technician may be expected to perform about 10,000 procedures a year; thus, one laboratory technician might be required. The association did not employ a laboratory technician during the first year.

About 1,500 diagnostic X-rays and 300 X-ray treatments are needed each year for 5,935 individuals. At least one X-ray technician working in a central laboratory will be needed to handle this work. The association did not employ an X-ray technician.

It is to be expected that 5,935 persons will need about 1,200 physical therapy treatments per year. This volume of service would not occupy the full time of one physical therapist, therefore, it would be desirable to combine the functions of a physical therapist with some other technician, such as a nurse. No physical therapist was employed during the first year.

Pharmacists.- Approximately 12,000 prescriptions might be needed for 5,935 persons. Here again the services of one pharmacist would be insufficiently employed and the employment of such a technician would not be warranted. No pharmacist was employed during the first year.

Nurses.- It is estimated that, for a complete home nursing service, two full-time graduate nurses are needed for the 5,935 persons (1 nurse to 3,000 persons). But since the nursing service was based upon clinic work, involving technical, laboratory, secretarial, and even ambulance driving, such a standard is not an adequate basis of comparison.

It will require approximately 1 hospital nurse for every 4 general beds, or 20 nurses for the 78 beds in the 3 hospitals. Actually, only 10 nurses were employed by the hospital managements. On this standard, Holy Cross Hospital was understaffed by 5 nurses, Embudo Presbyterian Hospital by 2 nurses, and Thomas P. Martin Hospital by 4 nurses. However, some of this apparent personnel deficiency was compensated for by 1 nurses' aide at Holy Cross Hospital, 4 nurses' aides at Embudo Presbyterian Hospital, and 3 nurses' aides at Thomas P. Martin Hospital.

Preventive Services

Periodic Health Examinations.- It has been impossible to furnish systematic health examinations during the first year because of shortage of personnel. Estimates derived from Lee and Jones suggest that infants under 1 year may be considered to require at least four examinations yearly, children from 1 to 4 need two, and those from

5 to 19, one. Adults from 20 to 34 need to be examined only once in 2 years, those between 35 and 64 once a year, and those 65 and over twice a year. It may be estimated that if such standards of preventive care had been accepted by the association it should have been prepared to furnish a total of about 6,900 health examinations to the 5,935 persons covered. Obviously, it was not possible to do this with available professional personnel. All in all, it may be estimated that the full time of one general physician could reasonably be devoted to preventive work of this kind, or one-third of the time of three physicians.

Immunizations.- Much of the immunization work among membership has been done in cooperation with the Health Department. No complete records of the extent to which this service has been rendered are available. In 1940, under the nursing service of the Department of Public Health, 729 persons were vaccinated for small pox, 978 were given typhoid shots, and 412 were inoculated against diphtheria. As the association rolls include approximately one-third of the county population it can be roughly estimated that about 700 immunizations have been given to persons covered in the health program during 1942-43. This is at the rate of approximately 10 percent per year. Thus 10 to 15 years would be required at the present rate of service to completely immunize the whole membership. This does not consider the excess of births over deaths.

Health Education.- Of course, the greatest educational mechanism is the health program itself. As one individual put it: "The most effective educational program is to get them (families) to put the money in and get a taste of medical care." The individual work of physicians and nurses is the main channel for disseminating health education but this is supplemented by group meetings and special clinics. Such group work necessarily has been relegated to secondary place as a function of the clinic nurses because the burden of curative care has been so great. The association has sponsored 12 clinics and group meetings in cooperation with the Department of Public Health during the first year, with a total attendance of 388 persons.

The association has relied upon the public schools, the Health and Public Welfare Departments, the Red Cross, the Anti-Tuberculosis Association, and the Taos County Project to carry the burden of health education. The excellent contributions of the Taos County Project to the educational and planning phases have now been lost to the Taosenos since its termination in August 1942.

Therapeutic Care

Clinic Care.- If the extent of coverage of the health program is any criterion of medical need, Penasco and Questa service areas stand out in sharp contrast to the Taos service area (table 10). No doubt the proximity of nonassociation doctors and health services in the vicinity of Taos has some effect upon the extent of membership in the association, plus the fact that regulations placed upon membership effectively bar a disproportionate number of the Taos families from membership in the association.

Table 10.- Comparison of total population and number of members and dependents covered by the Taos County Cooperative Health Association during the first year of operation, by health center area, October 1, 1942, to September 30, 1943

Area	Total population		Total members and dependents	
	March 1, 1943		1942-43	
			Number	Percent of total
Penasco	1/ 3,273		2/ 1,785	54.5
Questa	1/ 3,311		2/ 1,636	46.4
Taos	1/ 9,012		2/ 2,614	29.0
County total	15,596		2/ 5,935	38.1

1/ Interpolated on the basis of 15.8 percent decrease in population from April 1, 1940, to March 1, 1943, for the county as a whole.

2/ Includes 34 persons for which no residence information was available prorated to the three areas.

Source: Sixteenth Census of the United States, 1940, Series P-3, No. 38, Table 3, p. 15.

Penasco Clinic, serving 29.9 percent of the total members and dependents, provided 34.1 percent of the total volume of medical services during the first year which includes visits to clinic doctor and clinic nurse, and visits by the clinic nurse to the home of the members (table 11). Questa Clinic, serving 25.6 percent of the members and dependents, rendered 25.3 percent of the total volume of medical services. Taos Clinic, serving 44.3 percent of the total members and dependents, provided 40.6 percent of the medical services.

Table 11- Volume of medical services provided to members and nonmembers by clinic doctor and nurse during the first year's operation of the Taos County Cooperative Health Association, by health center, October 1, 1942, to September 30, 1943

	Penasco		Questa		Taos		Total	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Visits to clinic doctor	1,906	28.1	1,572	23.2	3,298	48.7	6,776	100.0
Visits to clinic nurse only	682	70.8	248	25.8	33	3.4	963	100.0
Home visits by clinic nurse	230	42.8	274	51.0	33	6.2	537	100.0
Total volume of services	2,818	34.1	2,094	25.3	3,364	40.6	8,276	100.0
Total clinics held	103	19.8	102	19.6	316	60.6	521	100.0

Source: Monthly General Statistical Reports by Clinic, Association Records.

Penasco has a relatively high percentage of visits to the clinic nurse, Questa a high percentage of home visits by the clinic nurse, and Taos a high percentage of visits to the clinic doctor with very few nurse services, as such. These data indicate some variability in the type of medical care provided at each health center.

Wide variation between the various health centers also exists in the volume of medical services given at each clinic period during the year (table 12). The greater volume of services per clinic period at Penasco and Questa health centers is explained in part by the low ratio of clinic periods to members and dependents at Penasco and Questa, 58 per 1,000 and 67 per 1,000 respectively, in contrast to the higher ratio of 122 clinic periods per 1,000 membership at Taos.

Table 12.- Volume of medical services per clinic period, by health center service area of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	:	:	:	:	
	:	Penasco	Questa	Taos	Total
	:				
Visits to clinic doctor per clinic	:	18.5	15.4	10.4	13.0
Visits to clinic nurse only per clinic	:	6.6	2.4	0.1	1.8
Home visits by clinic nurse per clinic	:	2.2	2.7	.1	1.0
	:				
Total volume of services per clinic	:	27.3	20.5	6.5	15.9

Source: Monthly General Statistical Reports by Clinic, Association Records.

Average attendance at clinics during the first year of operation was, generally, highest during the winter months, from September through March, with the exception of the first month of operation (table 13). Lowest average attendance at clinics occurred during the summer months, from April through August, and during the first month of operation.

Table 13.- Number of visits (members and nonmembers) to doctor, per clinic, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	No. of clinics	Visits per clinic
<u>1942</u>		
October	36	9.8
November	41	13.9
December	42	16.5
<u>1943</u>		
January	41	13.6
February	42	14.3
March	46	14.2
April	46	11.5
May	45	12.6
June	45	11.9
July	48	11.7
August	47	12.1
September	42	13.9
Total	521	13.0

Source: Monthly General Statistical Reports, Association Records.

The pattern of visits to the clinic doctor by month was fairly uniform; that is, there were no great extremes in number of visits. However, the range between the highest attendance and lowest attendance was 339 visits (table 14). The following months were below the average in number of visits to the clinic doctor: October, 1942; January, April, June, and July, 1943.

Table 14.- Visits of members and nonmembers to clinic doctor,
by month, during the first year's operation of the Taos
County Cooperative Health Association,
October 1, 1942, to September 30, 1943

Attendance		
	Number	Percent
<u>1942</u>		
October	353	5.2
November	571	8.4
December	692	10.2
<u>1943</u>		
January	558	8.2
February	601	8.9
March	654	9.7
April	528	7.8
May	569	8.4
June	535	7.9
July	562	8.3
August	569	8.4
September	584	8.6
Total	6,776	100.0

Source: Monthly General Statistical Reports, Association Records.

Nonmembers have been accepted rather freely at the clinics and are assessed regular fees. Morbidity service to nonmembers is \$1.50 per clinic visit while examinations ranged from \$2.00 to \$5.00 at the discretion of the doctor. The number of nonmember visits to the clinic doctor was 92.1 percent higher during the last 6 months of operation than during the first 6 months. Over half of the total nonmember visits to the clinic doctor were made during the last 4 months of the first year's operation. The high point of nonmember participation in this service was reached in July 1943 (table 15).

Table 15.- Visits of members and nonmembers to clinic doctor compared, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Members		Nonmembers		Total	
	Number	Percent	Number	Percent	Number	Percent
1942						
October	332	94.1	21	5.9	353	100.0
November	534	93.5	37	6.5	571	100.0
December	649	93.8	43	6.2	692	100.0
1943						
January	532	95.3	26	4.7	558	100.0
February	567	94.3	34	5.7	601	100.0
March	626	95.7	28	4.3	654	100.0
April	495	93.8	33	6.2	528	100.0
May	522	91.7	47	8.3	569	100.0
June	468	87.5	67	12.5	535	100.0
July	486	86.5	76	13.5	562	100.0
August	499	87.7	70	12.3	569	100.0
September	514	88.0	70	12.0	584	100.0
Total	6,224	91.9	552	8.1	6,776	100.0

Source: Monthly General Statistical Reports, Association Records.

Nursing service, which includes visits to the clinic nurse and home visits by the clinic nurse, rose perceptibly during the latter months of the first year's operation. About two-thirds of the recorded nursing services were rendered during the last half year of operation. This increase in use of the nursing service may be due to seasonal variations as well as to absolute increases in volume of nursing service as the program progresses. The lack of records in October and November 1942 makes seasonal analysis almost impossible, but it is to be noted that the lowest months in nursing service fell between February and May 1943 (table 16).

Nonmembers made relatively more use of the nursing services than of the clinic doctor but no noticeable trend in nonmember participation is to be observed.

Table 16.- Nursing services received by members and nonmembers, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Members		Nonmembers		Total	
	Number	Percent	Number	Percent	Number	Percent
1942						
October	No record	---	No record	---	No record	---
November	No record	---	No record	---	No record	---
December	134	84.8	24	15.2	158	100.0
1943						
January	122	87.8	17	12.2	139	100.0
February	80	76.9	24	23.1	104	100.0
March	89	91.8	8	8.2	97	100.0
April	101	88.6	13	11.4	114	100.0
May	128	86.5	20	13.5	148	100.0
June	100	76.9	30	23.1	130	100.0
July	139	76.4	43	23.6	182	100.0
August	169	84.5	31	15.5	200	100.0
September	197	86.4	31	13.6	228	100.0
Total	1,259	83.9	241	16.1	1,500	100.0

Source: Monthly General Statistical Reports by Clinic, Association Records.

Technically speaking, only visits to the clinic doctor are considered as clinic visits as there must be a physician in attendance. The nurse, however, under direct supervision of the clinic doctor, may care for patients at the health center and may make home visits. Visits to the clinic doctor comprised about two-thirds of all medical services at Penasco, three-fourths at Questa, and all but 2 percent at Taos (table 17).

Table 17.- Doctor and nursing services provided to members and nonmembers during the first year's operation of the Taos County Cooperative Health Association, by health center, October 1, 1942, to September 30, 1943

	Visits to		Visits to		Home visits by:		Total services	
	clinic doctor	Percent	clinic nurse	Percent	clinic nurse	Percent	Number	Percent
Health center								
Penasco	1,906	67.6	682	24.2	230	8.2	2,818	100.0
Questa	1,572	75.1	248	11.8	274	13.1	2,094	100.0
Taos	3,298	98.0	33	1.0	33	1.0	3,364	100.0
Total	6,776	81.9	963	11.6	537	6.5	8,276	100.0

Source: Monthly General Statistical Reports by Clinic, Association Records

The dominance of clinic doctor services at Taos is accounted for, in part, by the fact that no nurse was available at Taos Health Center until April 1943, and service was disrupted in August when the Taos nurse had an automobile accident which incapacitated her for some time. In addition, home visits by the Taos clinic nurse were discouraged during the last 3 months of the first year. The variability in the pattern of medical services is brought out graphically in figures 3, 4 and 5.

Visits

500

400

300

200

100

0

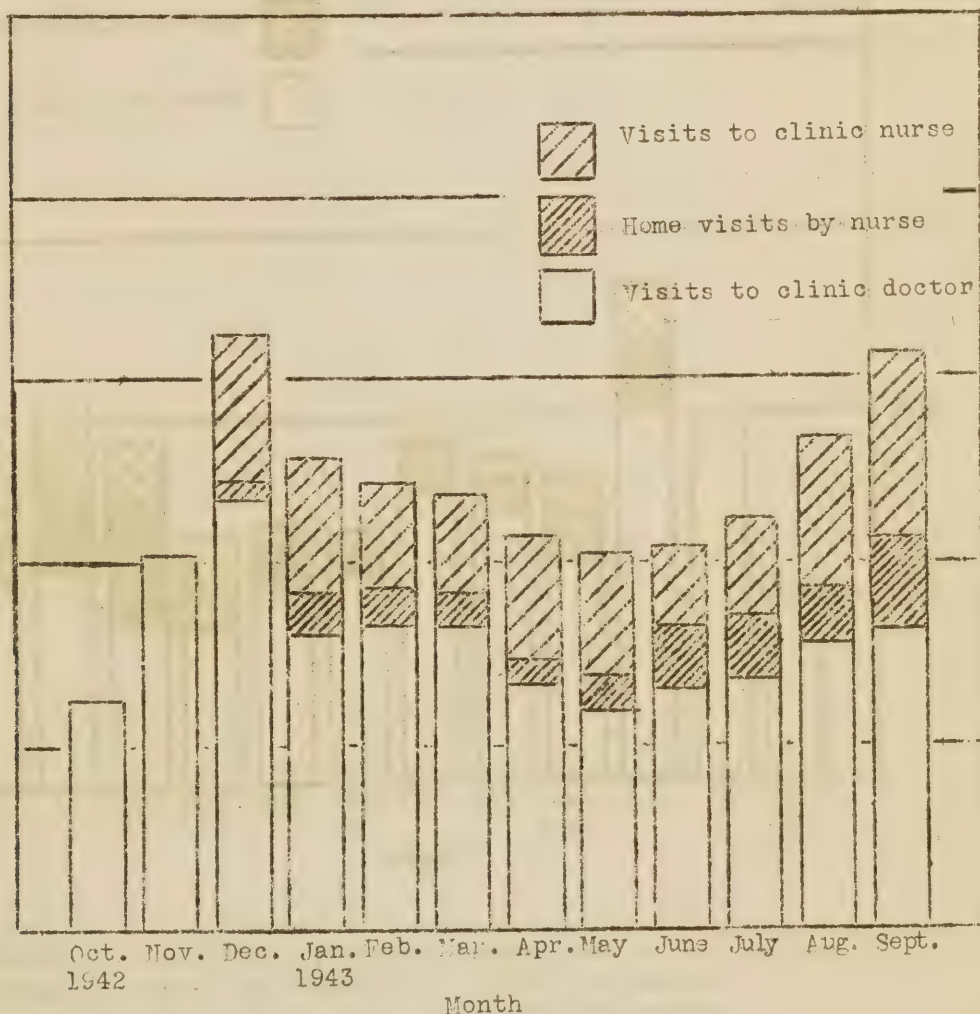


Figure 3.- Doctor and nursing services, Penasco Health Center, October 1, 1942, to September 30, 1943. (Source: Tables 18 and 19.)

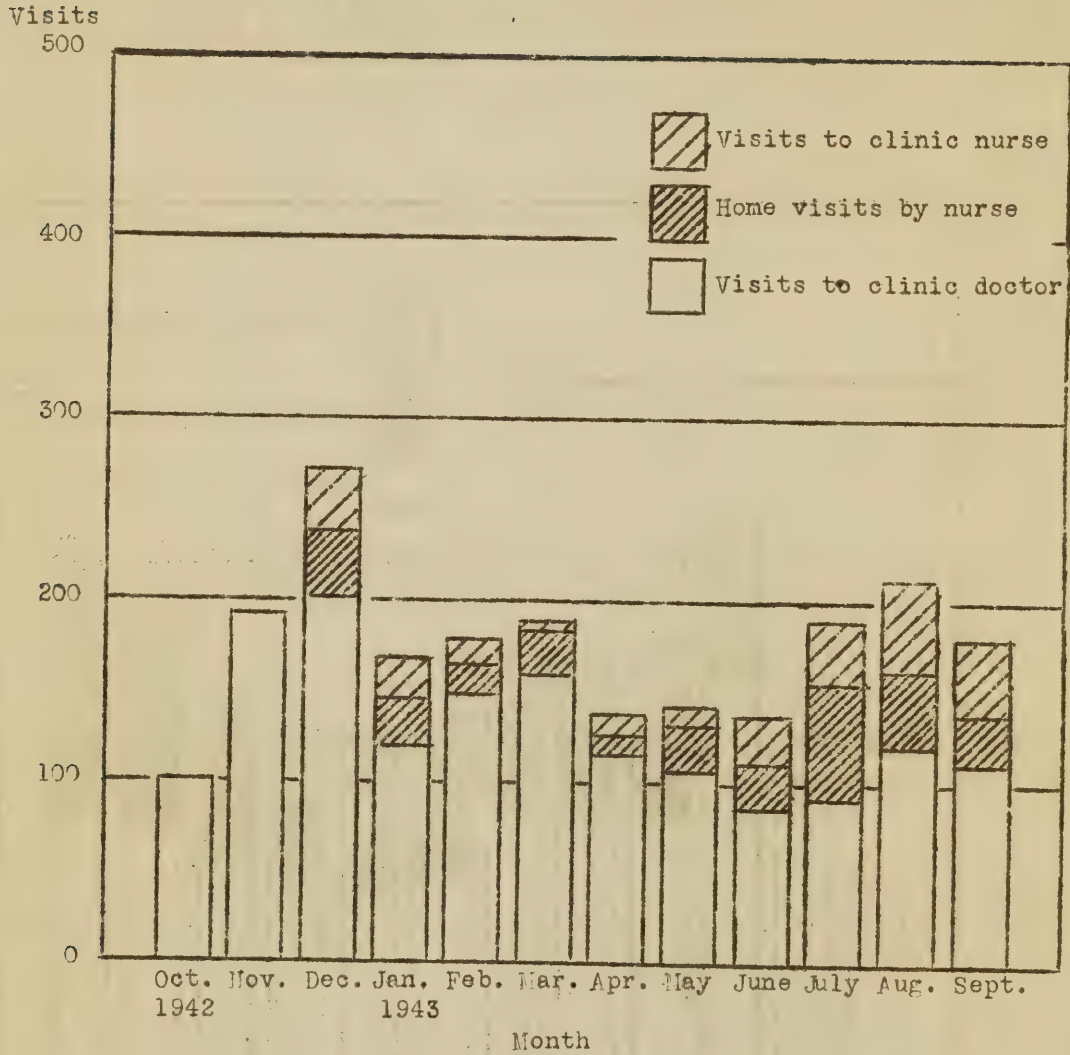


Figure 4.- Doctor and nursing services, Questa Health Center. October 1, 1942, to September 30, 1943. (Source: Tables 18 and 19.)

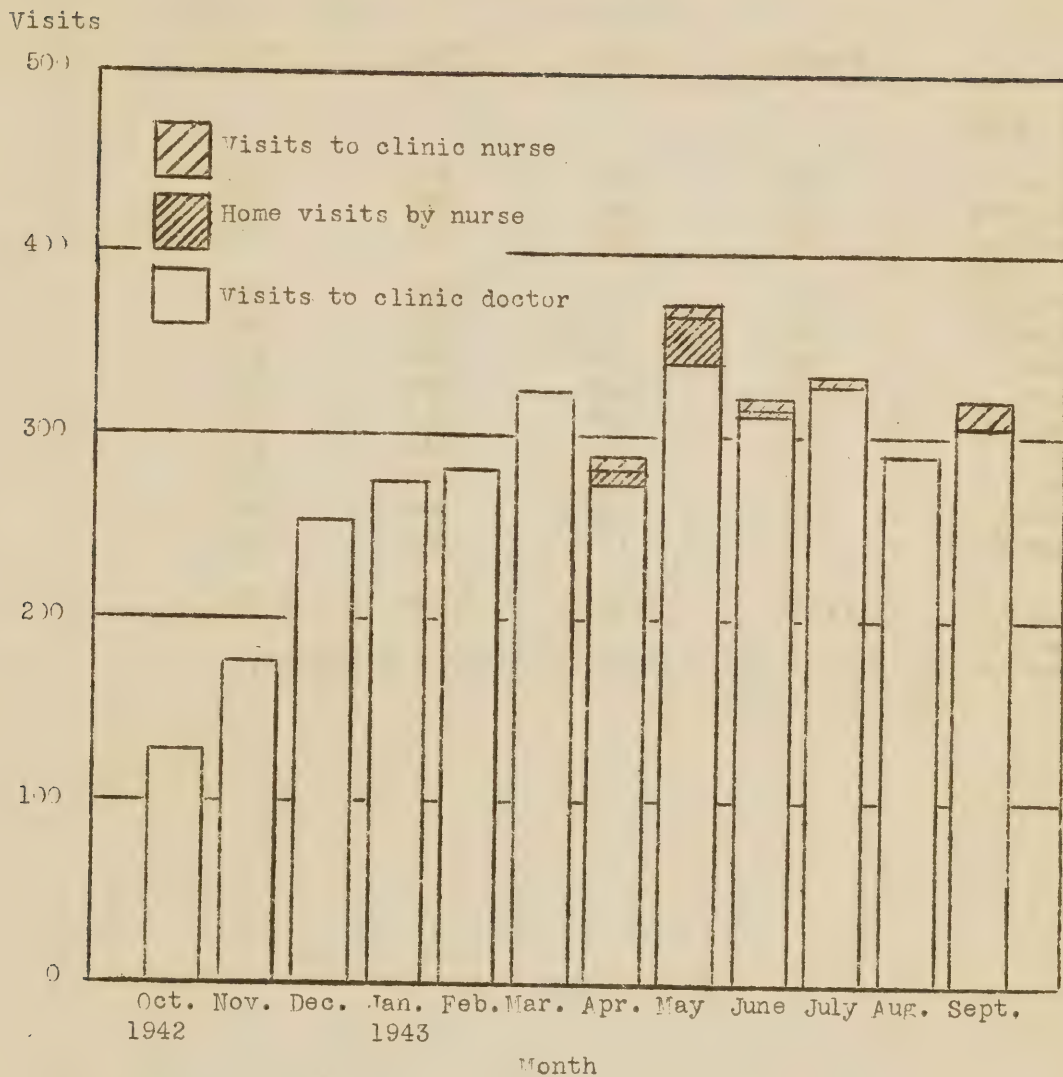


Figure 5.- Doctor and nursing services, Taos Health Center, October 1, 1942, to September 30, 1943. (Source: Tables 18 and 19.)

Table 18.- Visits of members and nonmembers to clinic doctor,
by health center, by month, during the first year's oper-
ation of the Taos County Cooperative Health Association,
October 1, 1942, to September 30, 1943

	Penasco	Questa	Taos	Total
<u>1942</u>				
October	125	100	128	353
November	203	192	176	571
December	236	203	253	692
<u>1943</u>				
January	161	122	275	558
February	168	150	283	601
March	165	162	326	654
April	135	118	275	528
May	120	108	341	569
June	132	88	315	535
July	138	94	330	562
August	157	122	290	569
September	165	113	306	584
Total	1,906	1,572	3,298	6,776

Source: Monthly General Statistical Reports by Clinic,
Association Records.

Table 19.- Nursing services, provided to members and nonmembers, by type of visit, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Penasco Health Center			Quetta Health Center			Taos Health Center			Total		
	Clinic	Home	visits	Clinic	Home	visits	Clinic	Home	visits	Clinic	Home	visits
	visits	visits	Total	visits	visits	Total	visits	visits	Total	visits	visits	Total
1942												
October	N.R.	N.R.	94	N.R.	N.R.	45	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
November	N.R.	N.R.	75	N.R.	N.R.	29	N.R.	N.R.	N.R.	N.R.	N.R.	N.R.
December	80	9	89	35	34	69	N.R.	N.R.	N.R.	115	43	158
1943												
January	75	19	94	22	23	45	N.R.	N.R.	N.R.	97	42	139
February	56	19	75	14	15	29	N.R.	N.R.	N.R.	70	34	104
March	55	16	71	5	21	26	N.R.	N.R.	N.R.	60	37	97
April	69	10	79	12	8	20	8	7	15	89	25	114
May	66	19	85	9	24	33	5	25	30	80	68	148
June	44	32	76	26	22	48	5	1	6	75	55	130
July	54	31	85	35	61	96	1	N.R.	1	90	92	182
August	82	29	111	49	40	89	N.R.	N.R.	N.R.	131	69	200
September	101	46	147	41	26	67	14	N.R.	14	156	72	228
Total	682	230	912	248	274	522	33	33	66	963	537	1,500

Note: N.R. = No Record.

Source: Monthly General Statistical Reports by Clinic, Association Records.

Hospital Care.- The hospital plan provides for 15 days of hospitalization for each patient at the Holy Cross Hospital at Taos, the Embudo Presbyterian Hospital at Embudo, or the Thomas P. Martin Hospital at Taos Pueblo. The patient may choose the hospital he or she prefers. Holy Cross Hospital and Thomas P. Martin Hospital are accessible to families living in the central and northern parts of the county, while Embudo Presbyterian Hospital is accessible to families living in the southern part.

The association attempted to hospitalize all obstetrical cases during the first year of operation but it is difficult to ascertain how effective this effort has been since birth statistics are not complete in the office records.

Surgery, ambulance services, and nursing care were provided. Full medical histories, physicians' findings, laboratory investigations, roentgenographic interpretations, and progress reports were maintained at each hospital. The usual practice was to provide ward accommodations at a rate of \$4 per day.

Some increase in use of the hospital by association members is indicated; 54 percent of the total hospital cases were cared for during the last half of the year. Of the hospitalized cases during the first year, 71.2 percent were persons 15 years old and over, although this age group represented only 54.7 percent of the total number of members and dependents (table 20).

Table 20.- Hospitalization provided to members and dependents, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Under 15 years		15 years and over		Total	
	Cases	Days	Cases	Days	Cases	Days
<u>1942</u>						
October	4	10	21	128	25	138
November	10	29	34	200	44	229
December	7	28	31	224	38	252
<u>1943</u>						
January	9	23	32	178	41	201
February	11	21	38	195	49	216
March	21	103	34	193	55	296
April	9	31	31	179	40	210
May	15	78	33	174	48	252
June	14	28	39	180	53	208
July	29	73	30	162	59	235
August	18	68	33	195	51	263
September	11	48	34	211	45	259
Total	158	540	390	2,219	548	2,759

Source: Monthly General Statistical Reports, Association Records.

Hospitalization during the first year averaged 5.0 days per case, varying from 4.1 days per case at Holy Cross Hospital to 15 days per case at Thomas P. Martin Hospital (Table 21). The latter rate is based on only one case.

Table 21.- Hospitalization during the first year's operation of the Taos County Cooperative Health Association, by hospital, October 1, 1942, to September 30, 1943

	Cases		Days	
	Number	Percent	Number	Percent
Holy Cross Hospital	408	74.4	1,656	60.0
Embudo Presbyterian Hospital	127	23.2	978	35.5
Thomas P. Martin Hospital	1	0.2	15	0.5
Other 1/	12	2.2	110	4.0
Total	548	100.0	2,759	100.0

1/ Includes cases and days not recorded by hospital.

Source: Transcribed from Association Records.

Cooperation with Proctor Eye Clinic.- During the first year of operation the association cooperated with the Proctor Eye Clinic in providing complete eye service (table 22). The objective was to correct refractive errors in school children covered by the association and corrections for presbyopia in adults.

Table 22.- Referrals to Proctor Eye Clinic, by month, during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Under 15 years	15 years and over	Total
1942			
October	3	--	3
November	5	12	17
December	12	15	27
1943			
January	6	13	19
February	5	11	16
March	7	21	28
April	5	20	25
May	5	10	15
June	1	9	10
July	1	4	5
August	1	5	6
September	--	1	1
Total	51	121	172

Source: Transcribed from Association Records.

Although children under 15 years of age represented 45.3 percent of the total membership only 29.7 percent of the referral patients were in this age group.

Dental.- Dental care provided for the extraction of teeth and limited treatment of the oral mucous membranes for all ages. Children were to be provided with protective dental services and health education with special effort on children of predraft age. The dental work was divided between the clinic dentist and referral dentist (Dr. Muller, Taos).

Dental care was provided at the health centers only during the months of February, March, July, and August but referral dentistry was available for the entire period. During the 4 months the clinic dentist was on duty however, he rendered approximately three times as many dental services as were rendered by the referral dentist during the year. Of the total services rendered 76.4 percent were extractions. Extractions constituted 70 percent of the clinic services and 93 percent of the referral services. There were 13.7 times as many extractions as fillings.

Table 23.- Dental services provided by clinic and referral dentists during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942 to September 30, 1943

	Clinic dentist			Referral dentist			Total		
	Under:15 and:			Under:15 and:			Under:15 and:		
	15	over	Total	15	over	Total	15	over	Total
Fillings	32	31	63	46	6	52	38	37	75
Treatments	21	33	54	4	7	11	25	40	65
Extractions	124	593	717	63	309	372	187	902	1,089
Examinations	46	125	169	--	--	--	96	123	169
Other	17	5	22	--	4	4	17	9	26
Total	240	785	1,025	73	326	399	313	1,111	1,424

Source: Transcribed from Association Records.

Although children under 15 years of age represented 45.3 percent of the total members and dependents, only 22.0 percent of the dental care was given to this age group. A total of 169 dental examinations were given during the first year, which is less than 3 examinations per 100 persons.

Volume of Services

During the first year's operation, the association provided 12,641 different services, of which 11,848, or 93.7 percent, were for members and dependents (table 24). These services cost the members of the association a total of \$4,393, or \$0.37 per service. The cost to non-members totaled about \$1,000, or \$1.26 per service.

Table 24.- Summary of services provided to members and their dependents during the first year's operation of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943 ^{1/}

	Number	Number per 1000 persons
Clinic		
Visits to clinic doctor	6,224	1,049
Visits to clinic nurse	816	137
Home visits by clinic nurse	443	75
Total clinic services	7,483	1,261
Eyes cases (treatments)	172	29
Dental (extractions, fillings, etc.)	1,424	240
Specialist	10	2
Hospital days	2,759	465
Total	11,848	1,996

^{1/} Does not include services rendered to nonmembers.

Incidence of Sickness and Injury

Penasco Clinic, with a rate of 105.9 cases of sickness and injury per 1,000 population, had the highest incidence of sickness and injury during the first year (table 25). The first four broad cause groups at Penasco were (1) diseases of the nervous system and sense organs, (2) diseases of the respiratory system, (3) diseases of the skin, and (4) diseases of the digestive system, ranked in descending order.

The most important broad cause group at Questa was (1) diseases of the digestive system, followed by (2) other enumerated conditions without sickness, (3) diseases of the respiratory system, and (4) diseases of the skin.

At Taos, the most important broad cause groups were (1) diseases of the digestive system, (2) diseases of the respiratory system, (3) diseases of the nervous system and sense organs, and (4) senility and other and ill-defined diseases.

On gross inspection of the data and rates for each clinic there is indication that the population of the Penasco area had a relatively high incidence of diseases of the nervous system and sense organs, a relatively high incidence of diseases of the respiratory system, and a relatively high incidence of diseases of the skin, whereas Questa had a relatively high rate of injuries. The relatively high incidence of disease in the Penasco area may be due, in part, to long period of isolation of this area which cut off the benefits of modern medical science and sanitation. The greater number of injuries in the Questa area may be due, in part, to the hard-rock mining in the vicinity, which is resorted to as a source of supplemental income by farm people.

Table 25.- Number of cases and rate of sickness and injury among 119 sample families during the first year's operation of the Taos County Cooperative Health Association, by clinic

	Perasco			Questa			Taos			Total		
	: Number :	: pop. :	: Cases:per1,000:	: Number :	: pop. :	: Cases:per1,000:	: Number :	: pop. :	: Cases:per1,000:	: Number :	: pop. :	: Cases:per1,000:
List of diagnosis categories												
Infections and parasitic diseases	1	0.6	2	1.3	2	0.8	5	0.8				
Neoplasms	1	.6	0	0.0	0	.0	1	.2				
Rheumatic fever, Diseases of nutrition and of the endocrine glands, other general diseases and avitaminoses	4	2.3	3	2.0	1	.4	8	1.4				
Diseases of the blood and blood forming organs	1	.6	2	1.3	0	.0	3	.5				
Chronic poisoning and intoxication	0	.0	0	.0	0	.0	0	.0				
Diseases of the nervous system and sense organs	33	18.6	12	7.9	19	7.3	64	10.8				
Diseases of the circulatory system	2	1.1	7	5.1	1	.4	10	1.7				
Diseases of the respiratory system	30	16.9	21	13.8	21	8.1	72	12.2				
Diseases of the digestive system	24	13.5	23	15.1	28	10.8	75	12.7				
Diseases of the genito-urinary system	6	3.4	3	2.0	12	4.6	21	3.6				
Deliveries and complications of pregnancy, childbirth, and the puerperium	5	2.8	3	2.0	2	.8	10	1.7				
Diseases of the skin	27	15.2	14	9.2	16	6.2	57	9.7				
Diseases of the bone and organs of movement	2	1.1	0	.0	2	.8	4	.7				
Congenital malformations	0	.0	0	.0	0	.0	0	.0				
Diseases peculiar to the first year of life	2	1.1	0	.0	0	.0	2	.3				
Senility and other and ill-defined diseases	15	8.4	10	6.5	18	6.9	43	7.3				
Injuries and poisonings	7	3.9	9	5.9	5	1.9	21	3.6				
Other enumerated conditions, without sickness	22	12.4	23	15.1	12	4.6	57	9.7				
Not ascertainable	6	3.4	5	3.3	1	.4	12	2.0				
Total	188	105.9	137	89.7	140	53.9	465	78.8				

Source: Association Records.

Costs

The total cost of the first year's operation was \$73,995 of which \$44,500, or 60.1 percent, went for cost of services and \$29,495, or 39.9 percent, for land, buildings, equipment, etc. Cost of services during the first year averaged \$38.03 per family (table 26). If the capital assets are depreciated at 5 percent annually and this figure added to the cost of services, an average cost per family of approximately \$39 is arrived at. Costs per family and costs per capita of the various services are summarized in table 26.

Table 26.- Summary of cost of services provided by the
Taos County Cooperative Health Association,
October 1, 1942, to September 30, 1943

Service	Total cost	Cost per family	Cost per capita
Clinical	\$ 9,167	\$ 7.84	\$1.54
Medical	12,682	10.84	2.14
Dental	3,738	3.19	0.63
Hospital	10,680	9.13	1.80
Management	8,233	7.04	1.39
Total cost:	\$44,500	\$38.03	\$7.50

Source: **Treasurer-Manager's** Annual Report covering period October 1, 1942, to August 31, 1943, expanded by one month on a pro rata basis.

A recapitulation of receipts of the association shows that 81.4 percent of the funds came from the FSA grants and only 5.9 percent from membership fees (table 27). If membership fees are considered in relation to the \$44,500 which is total cost of service, they constitute 9.9 percent of the sum.

Table 27.- Receipts of the Taos County Cooperative Health
Association from October 1, 1942, to August 31, 1943

	Dollars	Percent
Membership assessments	\$ 4,393	5.9
FSA grants	60,555	81.4
TCMC grants	946	1.3
Contributions of cash and property	7,564	10.2
Nonmember clinic fees	884	1.2
Other income	6	0.0
Total	\$74,348	100.0

Source: **Treasurer-Manager's** Annual Report covering the period October 1, 1942, to August 31, 1943.

On the average, each clinical service (to members and nonmembers) cost the association approximately \$2.11. Such costs on the average compare favorably with usual "fees for service." Average cost per clinic held was \$33.58.

Each hospitalized case cost \$24.68 on the average, or \$4.90 per day. This figure is calculated by including the salary of the association's staff physician, who devotes his time to handling hospital cases at Holy Cross Hospital, with the other expenses of hospital care.

Specialist care averaged \$75.20 per case and eye service \$3.19 per case.

Dental services (extractions, fillings, and treatments) cost an average of \$2.63.

It is to be noted that management costs are not included in any of these figures of average costs. Management cost about 11.1 percent of the total expenditures during the first year of operation.

Method of Determining Family Fee.- Membership fees for the first year of operation were computed as follows:

- (1) For nonfarm families, a flat annual fee of \$32.
- (2) For families now or last engaged in agriculture, 1 percent of the annual family income up to an amount equal to \$100 per person in the family, plus 3 percent of the family income over an amount equal to \$100 per person in the family. For example, a family of three persons with \$300 annual income paid \$3, whereas a family of three persons with \$800 annual income paid \$18.
- (3) For individuals, one-half the fee calculated as for a family of two with the same income.

The average fee assessed during the first year's operation was \$3.75 and the total cost of services averaged \$38.03 per family. Therefore, the average subsidy during the first year averaged \$34.28 per family.

Chapter V

WHAT MEMBERS THINK ABOUT THE HEALTH ASSOCIATION

Participation in and Knowledge of the Health Association by Members

As the form of voluntary association entered into here is essentially that of a cooperative it is important that members, who actually control the organization through their vote, should understand what is going on. One of the Goethe's proverbial sayings runs as follows: "One does not possess that which one does not comprehend." It aptly applies in this

situation; only 3 family members interviewed, less than 3 percent, showed a clear knowledge of the purpose of the association; 20 heads, or 16.8 percent, showed fair knowledge; and 79.9 percent of the family members interviewed showed poor or no knowledge of the purpose for which the association was organized.

The concept of mutual aid or cooperation was evident only in the three interviewees who were recorded as showing a clear knowledge. Statements of two of these interviewees follow:

- (1) "The purpose of the association is to cooperate with people to have a program of good health."
- (2) "It takes care of rural sanitation and checks upon illness. By getting together we can use all the preventive measures within our power."

The most general answers among those rated as having poor knowledge of the purpose were:

- (1) "To give medical service."
- (2) "To help families in need of medical care."
- (3) "To help families get a doctor."
- (4) "To look after sick persons."
- (5) "To better up the health of people."
- (6) "To help them when they get sick."
- (7) "To attend to the members or they can't get fees out of them."
- (8) "If one of my daughters get sick we know where to get medical care."

Forty-eight families, or 40.4 percent of those interviewed, reported that they did not know the treasurer-manager. Of those interviewed, 21.9 percent answered either that they did not know the association had a Board of Directors or positively stated that it had none. Only 40.3 percent of the interviewees could name one or more members of the board.

Over one-half of those interviewed knew exactly the amount of their membership fee for the first year. Less than half (45.4 percent) had a fair to clear knowledge of how the first year's fee was determined, 19.3 percent had a poor knowledge, and 34.5 percent had no knowledge.

Of the members interviewed, 13.5 percent said that they attended the annual meeting in Tabs on July 9, 1943, and 32.8 reported attendance at one or more of the local community or health committee meetings.

News and information travels quickly through the villages, mostly by word of mouth. Thus the seemingly impervious wall between the people of the village and the outside is readily overcome when it is possible to recruit emissaries of the new culture from within. Local mechanisms for dispensing general information become a necessity in the Taos culture.

Practically all members interviewed (97.5 percent) said they felt free to make suggestions to the nurses, managers, or directors for improving the association's program, but only 8.4 percent availed themselves of the opportunity during the first year.

Almost two-thirds of the members interviewed (62.2 percent) had urged their neighbors to join and 52.1 percent reported that they knew some neighbors had joined at their suggestion.

Opinions of the Members in Regard to Health Services

All but two members interviewed felt the association was a good thing for their family, community, and county. The various services offered by the association were rated by the membership sampled (table 28).

Table 28.- Opinion of membership of the Taos County Cooperative Health Association regarding specified services included in the first year's health program, October 1, 1942, to September 30, 1943

	Percentage of the members interviewed reporting:					Total
	Favorable	Neutral	Unfavorable	Opinion	Information	
Doctors	91.6	0.0	5.1	2.5	0.8	100.0
Medical interns	58.0	.0	0.0	41.2	.8	100.0
Clinic dentist	58.8	.0	1.7	38.7	.8	100.0
Nurses	86.6	.0	.8	11.8	.8	100.0
Treasurer-manager	58.0	.0	.0	41.2	.8	100.0
Board of Directors	67.3	.8	.0	31.1	.8	100.0
Hospitals	71.5	.8	.8	26.1	.8	100.0
Clinical services	84.1	.8	1.7	12.6	.8	100.0
Drug services	77.4	.0	.8	21.0	.8	100.0
Ambulance	63.0	.0	1.7	34.5	.8	100.0
Eye service	58.8	.0	2.5	37.9	.8	100.0

Source: Sample Survey, November-December 1943.

The doctors received proportionately more unfavorable replies, 5.1 percent, but they also received the greatest number of favorable replies, 91.6 percent. This is due to the fact that most of the families have had an opportunity to appraise the doctors and thus have definite opinions about them. As might be expected, nurses received the next highest number of favorable replies followed closely by the clinical services.

A detailed analysis of the unfavorable replies on doctor's services reveals the following facts in brief:

Interview was conducted with the wife since the head was not at home. The woman was sick in bed. Present also were a son and son-in-law. She said no meetings were held in El Prado to inform the people about the association. Liked the idea of having the various programs explained to the people. She said that Dr. _____ knew very little Spanish and that made it difficult for her to understand. She said people get sick in the middle of the night and needed medical care. She had gone to town to Taos Clinic and found no doctor present, and had been obliged to call on some other doctor. She said she got a bill from Dr. _____ for hospital services which she did not feel she owed. She suggested that doctors ought to make home calls in case of necessity. (Schedule 20.)

Interview was conducted with the head who is the son of the woman interviewed in interview Schedule 20. Mr. G. is very disgruntled over the first year's service even though his wife used the hospital 27 days during the year. He thinks the doctor should make home visits. He said he can never find anyone at clinic when he goes in; he has had to go to other doctors. (Schedule 21.)

Interview was with the male head. His wife is dead. He said he went to Questa Clinic and "they pay me no attention". This was, he said, the first visit to the doctor during his lifetime of 72 years. Mr. and Mrs. S. had 13 children, all living today. Furthermore, he has 30 grandchildren and 3 great-grandchildren, all living. All live in Cerro, except one daughter with 7 children who lives in Chama, Colorado, and one with 4 children who lives in Costilla. His mother is 93 years old, hears and sees well. (Schedule 37.)

Interview was conducted with the wife. She said she was dissatisfied with the doctors because they could not cure her of her sickness. She is a chronic case and has been to other doctors. (Schedule 55.)

Interview was made with the head. He said that in September 1942 he was hurt by a horse and he went immediately to Taos Clinic. He was refused admittance because it was Sunday, but the doctor saw him and taped him up and told him it would take a long time to heal; and he told him not to come back. Later, an Indian medicine man visited him, saying he could cure him without money. The injured man said he was cured "by taking away the cramps in his stomach." (Schedule 58.)

On December 3, 1943, the interviewers went to a house in the placita and asked where Mr. M. lived. The woman answering the knock said that the M. family lived across the placita but she would send a child to fetch someone since the family to be interviewed had a very sick person in the house at that very moment. The child was dispatched and returned with a young daughter who

offered to answer the questions for her mother. Another neighbor made her house available for interview purposes. It was obvious from the beginning that all were suspicious of the interviewers, particularly when they learned they were association workers. While conducting the interview an elderly man with a "bad look" (ojo malo) came in. Immediately, the Spanish interpreter jumped to his feet, grasped his hand firmly and said enthusiastically, "How are you, sir?" Then the interview proceeded. Neighbor's children and grownups collected around the daughter being interviewed. The tension was broken.

She told us about the sick lady. How, by order of the clinic doctor at Penasco, Mrs. M. was taken to Holy Cross Hospital one Thursday. On Friday the hospital sent a telegram to the family but they did not receive it on time. It stated to come get the sick woman or the patient would be taken to the asylum at Las Vegas. "The sheriff and the damn' State Police come here after we bring her from the hospital trying to take her to the asylum without any proof of insanity." The family felt that this patient had been neglected by the doctors and nurses. The patient died the day following the interview. The Penasco nurse reported the death as due to refusing to drink water at home. (Schedule 72.)

No unfavorable opinions were expressed in respect to the Mexican medical interns. Rather, those who knew them fairly beamed their satisfaction when they expressed their approval of them for they seemed to like their "language."

The unfavorable opinions of the clinic dentist were expressed in the following notes on interviews:

Interview was made with the wife. She said she went to clinic to get her teeth fixed and the dentist wasn't there. Had to go to Alamosa, Colorado, to get her teeth fixed. (Schedule 107.)

Interviewed the head. He said, "Get a better dentist; the people say this." (Schedule 114.)

The nurses received unfavorable reports in only one interview:

The head said, "Give better attention to members when they go to clinic." (Schedule 102.)

Hospitals received only one definitely unfavorable reply, and clinical services came in for two unfavorable reports.

One unfavorable report on drug service simply stated that the drugs did her no good.

Two cases reporting unfavorably on the ambulance services are as follows:

Interview was conducted with the wife. She said they felt that either the ambulance or doctor should come to the home. (Schedule 26.)

Interview was made with the wife. She said the head went over to Penasco Clinic to get to the hospital at Dixon and found that the nurse had left for Albuquerque. He never did get to the hospital and feels he did not get good service. (Schedule 92.)

Eye services were criticized in three cases as follows:

Family at Cerro had to go to Alamosa for two pairs of glasses for a daughter. They were unable to secure service through the Quosta Clinic. (Schedule 38.)

Unable to secure glasses through the clinic at Penasco; she went to a local optometrist. (Schedule 76.)

Received no service at the clinic. Had to go to Alamosa to get glasses. (Schedule 107.)

In summary, a total of 13 interviews revealed one or more unfavorable reports. One other family refused to answer any of the questions which fact should be given some explanation. A few days before interviewing was started in Valdez, the wife of one of the members of the association had died from complications attending childbirth. She had been hospitalized but later the husband took her home, saying that she was not getting proper attention. Very soon thereafter the patient died. The solidarity of the community was amply demonstrated on this occasion when interviewing began, for the interviewers found it difficult to approach any of the neighbors of the family and the family itself refused the interview. A most significant sidelight was the fact that although Valdez was generally permeated with this antagonism to the association no evidence of such feeling was apparent, concurrently, in the adjoining village of Dos Montes.

All but one of those interviewed expressed satisfaction with the membership fee for the first year but 24, or 20.1 percent, expressed dissatisfaction with the quota schedule for the second year. The first year's fee was calculated on the basis of one percent of the annual gross income up to an amount equal to \$100 for each person in the family plus three percent of the family income in excess of \$100 per person in the family. No family was permitted to pay less than the minimum fee of \$1.00. During the second year the minimum fee was raised to \$8.00.

At the time the interviews were made (November-December), only 62.2 percent had renewed their membership, 24.4 percent said they planned to renew, and 13.4 percent said they were not planning to renew. Of the 15 families who indicated that they were not renewing their membership for the second year, all but three expressed dissatisfaction with their new fee.

Dissatisfaction with the second year's fee was traceable, in large part, to a lack of information concerning the way the new fee was computed. In most instances this dissatisfaction has been effectively removed by careful explanation and presentation of the facts.

An overwhelming majority, 70.6 percent, of the families interviewed favored a fee based on income but decreasing as size of family increases, which was the system used during the first year. However, 14.3 percent expressed preference for a schedule of fees based on income only, and 5.0 percent for a schedule which was the same for every family regardless of size of family or income. Five of those interviewed expressed a preference for a schedule based on income, but increasing as size of family increased, and three thought that payments should be according to the amount of use that the family makes of the services.

Opinions of the Members in Regard to Adequacy of Care

More than three-fourths, 79.9 percent, of those interviewed felt that they received better health care during the first year in the association than before joining. Only one family reported poorer care and six reported equal care.

Notwithstanding the broad coverage of the association's health program, 31.1 percent of the families spent an average of \$26.29 per family for outside services during the first year of membership (table 29). These families spent more than five times as much money, on the average, for services outside the association than in payment of their first year's membership fee, averaging \$4.63 per family.

Table 29.- Services received outside the association by member families of the Taos County Cooperative Health Association, October 1, 1942, to September 30, 1943

	Families : reporting:	Total : cost	Average cost : per family
Medical doctor	: 17	\$458.50	\$26.97
Medicine man	: 2	3.00	1.50
Drugs and medicine	: 19	102.50	5.39
Midwife	: 5	48.00	9.60
Dentist	: 4	41.00	10.25
Hospital	: 2	156.12	78.06
Other	: 10	163.55	16.36
All services	: 37	\$972.67	\$26.29

Source: Sample Survey, November-December 1943.

These data suggest that a number of families might have contributed more to the association plan during the first year of operation without undue effort if all services had been provided by the association.

Habit and custom play a great part in determining the pattern of medical care in any community. Five families paid for midwife services at childbirth even though assured of hospital care under the association program. In addition, two families called in medicine men for sickness.

The solution to the problem, therefore, is not one of merely making adequate care available; it also involves overcoming the forces of habit and custom.

Opinions of Nonmembers in Regard to the Association

Many informal contacts were made with persons not connected with the Health Association. Generally speaking, information about the functioning of the association is lacking but nonmembers reflect an opinion that it is a good thing for the people of Taos County and is making the people more health conscious. Criticism is often directed against the large governmental subsidy and the fact that the association has taken over most of the available medical personnel in the county. Before the war, Taos County had five doctors; now there are but three. Two of the remaining physicians are on the staff of the Health Association, leaving only one full-time physician for nonmembers, which comprise 62 percent of the total population of Taos County. Nonmembers are hard put, therefore, to obtain medical care as a result of the association program and the loss of two physicians due to the war. But a considerable number of nonmembers make use of the Health Center, amounting to 8.1 percent of all the visits made to clinic doctor and 16.1 percent of the nursing services. Most persons overlook the fact that the county suffers from an over-all lack of doctors and this paucity is not due entirely to the activities of the Health Association.

Chapter VI

INTERPRETATION AND APPRAISAL

General

Association members, physicians, dentists, nurses, and other employees; hospital staff personnel and local druggists generally agreed that the Taos County Cooperative Health Association was a good thing for the people of Taos County and that during the first year it was successful in providing more adequate health care to a larger percentage of persons than had been provided with care before. (The only major opposition has come from one Taos physician.) This has been accomplished in the face of war conditions which have presented many problems of administration that might not be expected in more normal times.

It must be acknowledged that the association covered only 38 percent of the total population of Taos County and, therefore, did not improve the health service for the entire county. Conversely, the remainder of the population has been cut off from the services of medical personnel previously available to them. The health center plan has partly compensated for this in spreading the services.

A number of reasons are given for the lack of more complete coverage:

- (1) The voluntary nature of the plan places a great reliance on educational processes for bringing in members and this requires time.

- (2) The Board of Directors has felt compelled to limit membership to a maximum so that fair standards of medical care can be maintained.
- (3) A fairly large segment of the population, perhaps 15 percent, is ineligible for membership on the basis of too high incomes and the fact that they cannot qualify under the occupational requirement.
- (4) It is also fairly conceivable that a number of persons are unable to pay the minimum membership fee.

Salient Features

(1) The association was organized along cooperative lines, involving a pooling of risks and resources, to provide better health care to those covered.

(2) Costs to member families were on a prepayment plan, with the amount of fee based on net annual income of the family but decreasing as the size of family increases.

(3) Membership fees were supplemented by a grant from the Farm Security Administration, United States Department of Agriculture.

(4) Organization was built around strategically located health centers with a full-time nurse in charge of each center. Clinic nurses made home visits.

(5) Services of a clinic physician were available on a regular schedule at each health center. No home visits were made by the clinic doctor except in extreme cases.

(6) Services of a clinic dentist were available on a regular schedule at each health center during part of the year, and dental care on referral was available during the entire year.

(7) All personnel, including physicians and dentist, were on a salary.

(8) During the first year the Cooperative Health Association provided (1) medical care, (2) dental care, (3) eye service, (4) specialist service, (5) hospitalization, and (6) drugs.

(9) The association provided ambulance service to clinics and the hospitals.

Sociological Factors Involved

The successes or failures of the Taos County Cooperative Health Association can be explained only in relation to the culture in which it has functioned.

The Taos plan, with features running counter to traditional patterns of medical care, seemingly has met little resistance in the county. Many of the social factors present in other counties of the United States which might prevent the organization of a health association along the lines of the Taos County Cooperative Health Association either are not present or are inoperative in Taos County. Many of the word symbols that have connotation and bulk large as elements of social control in the greater society carry little or no weight in the folk society of Taos. Thus, words such as "socialized medicine," "free choice," "communism," "bureaucracy," etc., are rendered ineffective in Taos County.

Geographic and cultural isolation contributes much to this situation and if Taos were not sufficiently off the beaten track such a plan as that in operation might have aroused the active opposition of interest groups.

This consideration becomes highly important when any plan for extending such a program is contemplated. Such a plan will be likely to succeed only in areas where sufficient incentive is given for both rural people and physicians to modify and change their traditional beliefs and concepts in regard to rural medical care.

The cultural configuration is influential in determining how the members of the Health Association will react as a recipient of services and a participant in a cooperative organization.

Although cultural lag and cultural differences must be recognized in appraising the functioning of the health program they must not be overweighed as barriers to more adequate provision of modern medical care. This is shown rather conclusively by the general acceptance of all phases of the health program and apparently demonstrates that, given an opportunity to substitute modern medical care for that of the tribal witch doctor and medicine man, the people of Taos County will respond quickly to modern medicine.

It is only natural that the Taosenos would carry over a strictly utilitarian concept of medicine; that is, when one of them gets sick he expects to be cured. Much patient education will be required to ingraft a recognition of the place of preventive medicine in the health picture of the county.

Government, to the Taoseno, is no giant ogre waiting to devour the individual but rather is thought of as a beneficent protector. Government assistance in the financing and developing of such a program is accepted as natural. In response to the question, "How much of the cost of the Health Association Program should have been paid by the Federal Government?" the most usual answer was, "Half and half." In no case did the respondent show any antipathy toward the inclusion of the Government as a partner in financing the health program.

In view of the hierarchical form of social organization which predominates in the villages it is not surprising that 95 percent of the

families felt perfectly free to make suggestions but only 3 percent did it. The customary functional pattern is through recognized local leaders. A person living in one of the isolated villages might not express himself to a director or the treasurer-manager whereas he would readily unburden himself to a village leader--the priest or another leading citizen. More recognition of this fact might be given in the organizational set-up, thus providing for more face-to-face contacts and local methods of control.

Steps in Organizing the Taos County Cooperative Health Association

(1) The people of Taos County were brought to realize the need for better health care through demonstration, experience, and discussion. The early unincorporated Farm Security Administration medical cooperative effectively demonstrated an approach which might be made and focused attention on the health problem. Public discussion and education, sponsored by the Taos County Project which was financed by the Carnegie Foundation, set in motion a planning process which culminated in the present incorporated association. At least 18 months were consumed in this phase of development.

(2) Various courses of action were considered and an approach decided upon by laymen and professional leaders. Careful consideration was given to (a) the type of plan, (b) the rates to be charged, (c) the scope of services to be offered, and (d) the possible sources of financial support. This phase required approximately 12 months.

(3) Actually putting the plan into operation involved the solicitation of members, the working out of agreements with the professional people, and disposing of myriad details of administration. It has taken most of the first year of operation to create a smoothly functioning organization.

(4) Constant checking and appraisal was necessary to improve the standards and scope of service. This testing process has gradually been improved as the program developed. Constant improvement in records has been achieved. This step is a continuing one.

Leadership

The important role of purposeful leadership in the development of the Taos plan has been effectively demonstrated. Vertical leadership, functioning at local, State, and National levels, established the necessary links between the locality and the greater society; the horizontal leadership, functioning within specific fields of interest and a division of labor, laid the groundwork for the plan of operations.

One of the key individuals in the development of the health program was the present treasurer-manager. He has given constant attention to the program from its inception and has thus contributed the necessary continuity in leadership. He has been able to negotiate successfully between professional people, government representatives, and laymen. Finally, he has been a capable adviser in matters pertaining to financing.

Guiding Principles

- (1) The association was democratically controlled. Each member was allowed one vote in all elections and on all questions.
- (2) Membership was open to the extent that all rural families receiving \$1,200 or less net annual income were eligible for membership.
- (3) Membership was composed of members who voluntarily joined the association.

Scheme of Organization

The health service area and health center plan of organization has shown its practicability in Taos County, making modern medical service available to increased numbers of rural people with relative economies in money and time of professional personnel. Experience in Taos County has indicated that the service area should not extend much beyond 15 miles from the health center. However, it must be borne in mind that communication and transportation facilities are below average in the county.

The association lacks a modus operandi for discharging its broad health education responsibilities. The following steps are suggested as one way of setting a broad adult education process into motion:

- (1) Delineate the county into its various communities and group them into clinic areas.
- (2) Develop an understanding of the social situation in each community.
- (3) Select temporary leaders, one from each community.
- (4) Invite community leaders to a discussion meeting at the health center.
- (5) Talk individually to leaders.
- (6) Hold discussion meetings with community leaders at health centers.
- (7) Each community leader arranges for discussion groups in his community.
- (8) Each community organizes its own committee to carry on a health education program.

It has been suggested that the association sponsor a monthly newsletter or bulletin to keep the members informed. Motion pictures dealing with health problems might be added. This might require the release of the treasurer-manager from the detailed office routine for

the more essential educational activities. It is presumed that the association will employ one full-time field worker who knows the customs of the people and can organize membership campaigns.

In any broad program of education it would be well to consider drawing in the Agricultural Extension Service, the public schools, and the churches. It is unfortunate that Taos County has no home demonstration clubs. Lack of such local groups may be overcome by stimulating discussion groups through the schools and churches. Father Garcia at Ranchos de Taos has sponsored local discussion among Catholic families which has resulted in the establishment of a local clinic.

Adequacy of the Service

The adequacy of the association's health program can be brought into better perspective by comparing its personnel, services, and costs with a comparable urban plan (table 30). The Southern plan, summarized in this table, covered approximately the same number of persons as the Taos plan and provided a basis for comparing similar services.

Table 30.- Comparison of personnel, services, and costs of Taos County Cooperative Health Association plan, 1942-43, and a comparable plan in a southern city of about 100,000 population, 1940-41

	Southern Plan 1/	Taos Plan 2/
<u>Personnel</u>		
Physicians	10	4
Dentists	0	1
Registered nurses (clinic)	12	4
Laboratory technicians	2	0
X-ray technicians	2	0
Registered nurses (hospital)	15	10
<u>Services</u>		
Number of clinic calls	31,931	8,276
Clinic calls at which one or more physicians were seen	24,502	6,776
Clinic calls at which only a nurse or laboratory technician were present	7,429	1,500
Number of days of hospitalization	4,895	2,759
Number of home calls	913	537
<u>Costs</u>		
Average annual payment per person	\$19.00	\$7.50

- 1/ Barkev S. Sanders and Margaret C. Klem "Services and Costs in Pre-payment Medical Care Plan," Medical Care, July 1942, pp. 215-223. This article describes a plan serving more than 5,000 persons, living in a southern city of about 100,000 population.
- 2/ The Taos plan included limited dental service, eye service, and ambulance service, none of which were included in the Southern plan.

The Southern plan surpassed the Taos plan in number of physicians, registered nurses at clinic and hospital, and laboratory and X-ray technicians but the Taos plan included a dentist whereas the Southern plan did not include one. The rates of clinic calls and hospitalization were much greater in the Southern plan than in the Taos plan but the average cost per person was two and a half times as great in the Southern plan as in the Taos plan.

Effects of the Program

Although insufficient time has elapsed to draw many conclusions as to the effect of the program on the health habits of the people it appears that more mothers are now receiving prenatal and postnatal care, and better medical care and more hospitalization at childbirth. Patients are going to a doctor oftener and earlier, and are making more use of hospital facilities. Many families reported an increased feeling of security stemming from the knowledge that medical aid was more accessible; this is particularly true in the outlying villages.

It is generally agreed, too that the association has awakened a greater interest in health. This situation has indirectly redounded to the benefit of local drug stores but at the same time the association has gone into direct competition with them. Drug-store operators at Taos feel that the association should confine its drug business to Penasco and Cuesta-communities that are without drug stores.

Increased use of hospital facilities under the association's program has placed a greater burden upon them but has no doubt increased their revenues. The Thomas P. Martin Hospital has changed a long-standing policy of not admitting persons from the general population and thus more hospital facilities are now available than ever before. Competition between the three local hospitals has increased which some competent observers say has had a beneficial effect on the standards of hospital care.

Families living in Rio Arriba and Mora Counties to the south and west, and Costilla County, Colo., to the north have approached officials of the Taos County Cooperative Health Association asking to be included in the health plan. In some instances the adjoining counties are considering an independently incorporated plan of their own.

Problems

The most important question being asked about the Taos plan is: "Can the program be made self-supporting?" Under the first year's plan of financing it would not be able to make the program self-supporting as none of the members paid more than the average cost. If it were permissible to solicit and receive members from the higher income groups the program might conceivably become self-supporting. However, criticism by the medical profession was immediately sharpened

when the association attempted to do just this for the second year of operation by raising the maximum annual income from \$1,200 to \$1,800. It is reasonable to conclude, therefore, that unless the membership base is capable of being broadened to include high as well as low-income families the Taos plan cannot become self-supporting.

The fee during the first year was based on both net income and size of family. The rate was directly proportional to income and inversely proportional to size of family. Such a schedule has the disadvantage of being somewhat complicated but has the advantage of taking into account a social factor of family size and its relation to ability of the family to pay expenses. But use of so complicated a schedule system is hardly necessary to arrive at a reasonable and fair fee, particularly since the membership is composed of families whose net annual incomes fall below \$1,200, and more than three-fourths of them below \$500. (The mean average net annual income was \$354 for the first year, with a standard deviation of \$200.) The accuracy of figures on income given on the application is a moot question, but becomes of minor consequence when compared with the wider range of incomes in rural and, especially, urban United States.

Appendix

METHOD

The problem here is to describe what existed before and after the health association came into being and how the change was accomplished. The study has made use of statistics, case studies, life histories, and social surveys, which have required the application of the techniques of interviewing, participant observation, direct observation, case study analysis, charting, and quantitative analysis. The description and analysis is based on material obtained from the following sources:

- (1) Study and analysis of such printed or written material as annual reports, minutes, statements of policy, rules and regulation, procedures, by-laws, clinical statistics, scientific publications, financial statements, ledger books, applications, general statistics, and bibliographical material.
- (2) Interviews with professional, technical, and business administrators; supervisors, public agency representatives, physicians, nurses, social workers, priests, teachers, and others.
- (3) Interviews with member families and nonmember families.
- (4) Observation of plants and equipment and actual operation of services.
- (5) Selection and study of detailed case histories and personal documents.
- (6) Analysis of census data and vital statistics.

Selecting the Sample of Members

During the last 2 months of 1943, 119 family interviews were made with members of the association. The membership of the association was sampled by securing a numerical list of the association's membership. Then 10 numbers, from 1 to 10, were put in a hat and one was drawn. The number drawn, in this case number 7, was used to select the cases by taking all members whose last digit was 7. By this method 117 members, or approximately 10 percent of the membership, were selected.

If, for any reason, the member selected could not be interviewed the member represented by the next highest number was selected; if this case could not be interviewed then that member represented by the next highest number was selected. In addition to this method of selecting alternates to the original sample, seven cases were selected by chance according to community. This method was used only in the closing days of interviewing when it seemed desirable to expedite the interviewing process.

Of the original selection of 117 cases 94, or 80.3 percent, were interviewed. Twenty-nine substitute cases were selected and 25, or 86.2 percent, were interviewed. Thus, a total of 119 members were interviewed and a schedule taken between November 23, 1943, and January 10, 1944.

The 1,170 families who were members of the association in 1943 were compared with the 119 families in the sample with respect to residence, size of family, and fee paid per family for the first year of operation. In no case does a measure or a distribution for the sample depart significantly from that for the total membership (tables 31 and 32). Hence, sample families are considered representative of all association families. The sample covers 10.2 percent of the 1,145 families and 10.3 percent of the 5,935 individuals included in the association.

Table 31.- Distribution of all families in the Taos County, New Mexico, Cooperative Health Association and families in the sample by clinic area served, 1943

Clinic area	All association families		Association families in sample	
	Number	Percent	Number	Percent
Penasco	342	29.9	40	33.6
Questa	301	25.7	29	24.4
Taos	527	45.4	50	42.0
Total	1,170	100.0	119	100.0
Chi-square = 0.647, df = 2, P = 72%				

Table 32.- Comparison of all Taos County, New Mexico, Cooperative Health Association families and families in sample by mean average number in family and mean average amount of fee per family paid to the association, 1943.

Item	All association families	Association families in sample	Difference	t
Mean average number in family	5.1	5.2	+ 0.1	0.42
Mean average amount of fee: (dollars) per family paid to Health Association	3.75	3.55	- 0.20	0.74

Through personal interviews a schedule was filled out for each family interviewed, only one family refusing to answer the specific questions asked. Information obtained by use of this schedule covered the following: (1) pertinent facts about the level of living of the family, its culture and occupation; (2) the degree of participation in the association; (3) opinions of members toward the association; and (4) comparison of services before and after joining the association. In addition, data on the volume of services actually rendered to each family in the sample were transcribed from the ledger in the central office. This information covered the following: (1) age and sex characteristics and (2) diagnosis and type of service given.

TAOS COUNTY CULTURE

Taos, New Mexico, county seat of Taos County, is best known as an artist-writer colony but includes less than 5 percent of the county's population. Located in north central New Mexico, Taos County is figuratively cut in two by the deep gorge of the Rio Grande running north to south. The Sangre de Cristo Mountain Range on the east and the foothills of the San Juan Mountains on the west enclose the county's central alluvial plain which is abandoned to sage brush, other desert plants, and occasional clumps of stunted cedar. All but about 3 percent of the population live in the eastern half of the county along numerous mountain streams that flow from the Sangre de Cristo Mountains (figure 6).

The U. S. Census of 1940 classified 53.6 percent of the population of Taos County as rural-farm, which comprises all persons living on farms, without regard to occupation (table 33). A farm is defined by the Census Bureau as all the land on which some agricultural operations are performed by one person, either by his own labor alone or with the assistance of members of his household, or hired employees. The Census Bureau, furthermore, did not report as a farm any tract of land of less than 3 acres, unless its agricultural products in 1939 were valued at \$250 or more. This accounts, in part, for the large percentage of the population (46.4 percent) classified as rural-nonfarm. A large percentage of those persons classified as rural-nonfarm either live in agricultural villages (rancherias) or live on farms (ranchos) which are not so classified by the census. Therefore, the classification system used by the U. S. Census Bureau leaves much to be desired when applied to Taos County. The agricultural village type of settlement is most prevalent in the Taos and Penasco areas.

Table 33.- Rural-farm and rural-nonfarm populations by health center area according to the United States Census of 1940

Area	: Rural-farm		: Rural-nonfarm		: Total	
	: Number:	Percent:	: Number:	Percent:	: Number:	Percent:
Penasco	: 2,052	52.8	1,836	47.2	3,888	100.0
Questa	: 3,378	85.8	557	14.2	3,935	100.0
Taos	: 4,494	42.0	6,211	58.0	10,705	100.0
County total	: 9,924	53.6	8,604	46.4	18,528	100.0

Source: Sixteenth Census of the United States, 1940, Population II, New Mexico, Table 28, p. 67.

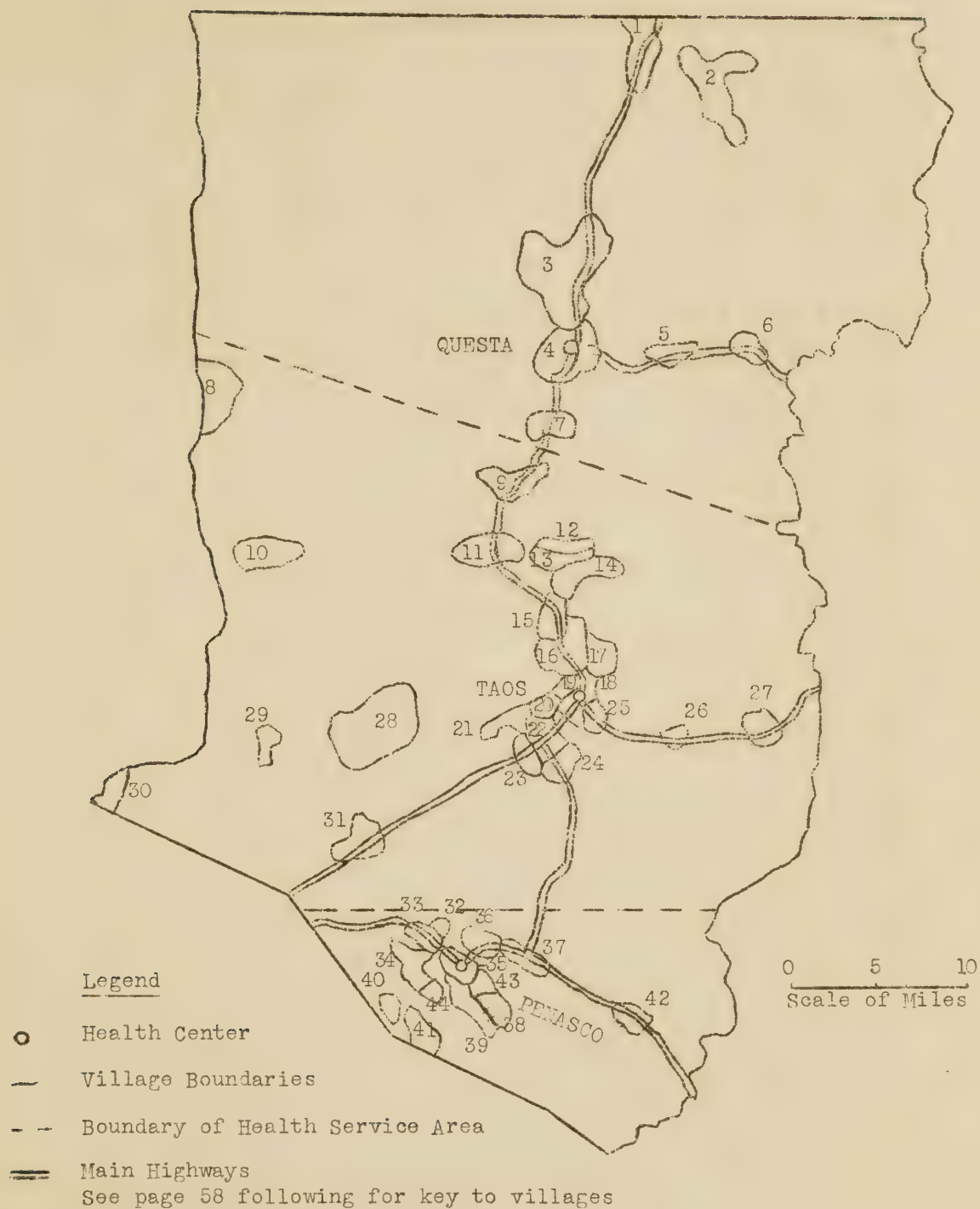


Figure 6.- Health centers and villages of Taos County, New Mexico, 1943

Key to Villages on Community Delineation Map

Cuesta Service Area

1. Costilla
2. Amalia
3. Cerro
4. Cuesta
5. Molybdenum
6. Red River
7. Lama

Taos Service Area

8. Tres Piedras
9. San Cristobal
10. Servilleta
11. Arroyo Hondo
12. Valdez
13. Des Montes
14. Arroyo Seco
15. Colonias
16. El Prado
17. Taos Pueblo
18. Taos
19. Ranchitos Arriba
20. Ranchitos Abajo
21. Los Cordovas
22. Ranchos de Taos
23. Llano Quemado
24. Talpa
25. Canon
26. Agua Viva
27. Tienditas
28. Carson
29. Taos Junction
30. Ojo Caliente
31. Pilar

Penasco Service Area

32. Picuris Pueblo
33. Rio Lucio
34. Chamisal
35. Penasco
36. Vadito
37. Rio Pueblo
38. Llano Largo
39. Llano San Juan
40. Trampas
41. El Valle
42. Tres Ritos
43. Rodarte
44. Ojito

People tended to settle where sufficient alluvial land and water for irrigation was available. The most intensive areas of settlement are located as follows: (1) centrally in the vicinity of Taos where the waters of Arroyo Seco, Rio Lucero, Rio Pueblo, Rio Fernando, and Rio Grande del Rancho meet; (2) north of Taos along Rio Hondo and San Cristobal Creek; (3) in the northern part around Cuesta where the Rio Colorado crosses the plain; (4) far to the north in the Rio Costilla valley; and (5) in the extreme southern part in the general vicinity of Penasco where the narrow mountain valleys of the Rio Pueblo, Rio Santa Barbara, Rio Chiquito, Chamisal Creek, and Creek Las Trampas converge.

The village (villa) is the most prevalent type of settlement. Generally speaking, each village consists of a public square (plaza), fairly centrally located, around which the houses are built. Located adjacent to the public square are the church and the market place. The pattern of settlement in relation to the public square usually assumes a line settlement form and is dictated by the location of cultivated land along the river bottoms; fields run in narrow strips across the valley floor from irrigation ditch to irrigation ditch. In some instances small clusters of houses (placitas) have grown up along the valleys composing minor satellites of the village proper.

Community life is built primarily around the family and activities of the church; the market place and school are secondary institutions. Individuals are tied together by many community bonds. Family ties are strong, resulting in the presence of many clan characteristics.

A pattern of social control based on the status roles of protector (patron) and protected persists throughout all dominant institutions. The concept of beneficent protector or patron may play a definite part in any association; it is not surprising, therefore that the treasurer-manager of the Health Association reported that not long after the association got under way its members were addressing him as "el grande patron." Such status roles are to be observed in the organization of the family, the community, the church, the farming system with its annual election of ditch boss (mayordomo), and, finally, the political system.

The symbolism of the Guardian Saint, the rituals of life (fiesta) and death (velario), the profession of the same religious faith (comunión), the common lands (comuneros) and similarity of occupation with its simple division of labor (la comunidad), and the relative

isolation (aislamiento) induced by topography contribute much to the development of intense community solidarity. To this list must certainly be added the unitary pattern of living existing within the home which is highly indicative of the level of living. 1/

Around this nexus of cultural facts are constructed the social values of the people. Near the top of the list of values must be placed an intense and fervent love of country or community followed by a respect for and reliance on authority, a pride in family, and a tendency to minimize the material aspects of life. Land ownership, no matter how small a plot, is looked upon as almost a sine qua non.

Other characteristics of the people include a fatalistic resignation to the problems of life, a belief in the supernatural, an intense interest in ceremonial (especially at birth, marriage, and death), and a great reliance on the spoken word. Children are more dependent upon the family than the public school for education. Medicine men or herb doctors are generally accepted and are resorted to in coping with sickness.

Most of the problems present in the region and in Taos County in particular can be traced back to the pressure of population on the land. The principal factors that ordinarily act as safety valves in areas of overpopulation have been either inoperative or ineffective. Industrialization has not penetrated the economy to any great extent so that alternative or supplemental sources of livelihood are not available. Nor has there been any significant tendency to reduce the birth rate by artificial means. Migration has been the primary means of releasing the pressure of population but here again the character of the migration has been such as to militate against a solution of the problem, for the pattern of migration is such as to use Taos County as a base of operations rather than to break economic ties with it. Consequently, in time of depression the population tends to accumulate in the area.

1/ Unitary pattern existing within the home:

- (1) Rectangularly shaped houses with a flat roof.
- (2) Construction of adobe bricks faced with brown mud.
- (3) One entrance door.
- (4) Two to four windows.
- (5) A large iron cook stove (shined to perfection).
- (6) A crude wooden table.
- (7) Two or three rude chairs.
- (8) Rough board floors (often hard dirt).
- (9) No floor coverings.
- (10) A full-sized bed made of iron.
- (11) Pictures of the Blessed Virgin on the wall.
- (12) A collection of photographs of relatives (men and women in the service) hanging on the wall.
- (13) Tourist post cards or folders hanging on walls.
- (14) Often a painted wooden figure of Christ upon the cross.

Population of Taos County increased 29 percent between April 1, 1930, and April 1, 1940. Since that time there has been marked outmigration as a result of war activity amounting to 2,932 persons between April 1, 1940, and March 1, 1943, or a decrease of 16 percent. It is not to be expected, however, that any large number of these individuals are gone for good.

Of the sample of 146 families selected for interviewing in November and December 1943, it was found that 21 entire families, or 14 percent of the sample, had left the county. Personal interviews were made with 119 farm families and it was found that more than one-third (34.5 percent) of the heads of these families were away from home doing off-farm work; an additional 21 percent of the heads had been away in off-farm work at some time during the last year. Only 39.5 percent of the farm family heads had not engaged in off-farm work during 1943. Of the 66 farm family heads who went off to work, 52 (78.8 percent) left New Mexico; 4 family heads (6.1 percent) went to other counties in the State, and 10 heads (15.1 percent) remained in Taos County.

It is evident on the basis of these facts that unless outside employment continues during the war and after, tremendous repercussions will be felt by the people of Taos County. The margin between security and insecurity is, therefore, extremely narrow. Sanchez says the problems facing the Taosono are related primarily to his education, his health, and his principal means of livelihood - the land. 2/ Taken together, his problems spell out an extremely low level of living. The rural level of living index for Taos County was 35 in 1940 compared with the average of 100 for all counties of the United States. 3/

Taos villages are subsistence agriculture communities. The sample of 119 association families reported an average family income in cash of \$354 in 1941-42 and \$475 in 1942-43. More than two-thirds (68 percent) of the families reported had cash income of less than \$400 in 1942-43, and slightly more (71 percent) reported cash income of less than \$400 in 1941-42.

Taos County is representative culturally of an area which overlaps the four States of Colorado, New Mexico, Arizona, and Utah, extending from the margin of the Great Plains on the New Mexico-Colorado border westward to the Grand Canyon in northwestern Arizona and from Grant County, New Mexico, to Montrose County, Colorado. The region, for the most part, is woodland, grassland, and semi-deserts with irrigated farming in the river valleys. The area of which Taos County is representative contained a population of approximately half a million in 1940.

2/ George I. Sanchez, Forgotten People, University of New Mexico Press, Albuquerque, New Mexico, 1940, p. 57 et passim.

3/ Margaret Hagood, Rural Level of Living Indexes for Counties of the United States, 1940, USDA, Washington, October 1943, p. 29.

Considering its rank order among the 32 rural-farm regions of the United States, the region represents an extreme. 4/ It is among the lowest in plane of living and percentage of tenancy. It ranks among the highest in ratio of children to women, in proportion of farms producing small gross income, and in rate of increase in the rural-farm population. Infant mortality rates were higher here than in any other part of the country.

Development of the Taos County Cooperative Health Association

The seeds of a cooperative health program were sown in January 1940 when FSA, through its local supervisor, signed an agreement with the doctors, dentists, druggists, and hospitals of Taos County to provide medical care for 248 FSA low-income families. These services began about April 1940 and continued until May 1941, at which time the agreements were renewed. But with the second year of operation came a great reduction in number of families from 248 to 120. The professional persons expressed dissatisfaction with this trend. Such a trend was associated with the better economic conditions prevailing in 1941 resulting in a reduction in FSA rolls and the number of families eligible for group medical care. Some local leaders began to see that the health problem in Taos crossed any arbitrary classification of families and, if a sustained health program was to be developed, a broadbased membership would be necessary.

In the meantime, an experimental adult education project had been initiated in Taos County by the Taos County Project which was formed in April 1940, under the direction of Dr. J. T. Reid of the University of New Mexico and the Harwood Foundation. The project was conceived as a cooperative enterprise among all of the agencies and organizations, public and private, to bring about a concerted, coordinated attack upon the varied problems of the county. 5/

A significant step was taken on May 9, 1941, when the thirteenth meeting of the project staff was turned over to discussion of health problems and, particularly, the unincorporated FSA medical cooperative. As a direct result of this discussion, a Health Committee was appointed by Dr. Reid on June 28, 1941; this committee held a series of rapid-fire meetings of its members between June and August 1941. By August 15, 1941, the committee had prepared a tentative set of by-laws for a cooperative health association and those were submitted by mail to the project staff. Later, at a meeting of the Taos Project Staff on October 10, 1941, these by-laws were adopted. A preliminary board of directors was appointed November 14, 1941, and a sign-up campaign for membership began December 12, 1941.

4/ A. R. Mangus, Rural Regions of the United States, Work Projects Administration, United States Government Printing Office, Washington, 1940, p. 28.

5/ J. T. Reid, The Taos County Project, First Annual Report, University of New Mexico Bulletin 371, Albuquerque, New Mexico, November 1, 1941, p. 4.

At this point in development, a period of roughly 2 years had elapsed since the first seeds had been sown back in January 1940; about 8 months had elapsed since the intensive planning had begun in conjunction with the Taos County project.

It was recognized almost at the outset that some form of subsidy grant would be necessary to help finance the program, so FSA and the Rockefeller Foundation were approached in July and August 1941 for a grant-in-aid. The Rockefeller Foundation was unable to offer any encouragement of its support; FSA considered the request favorably so that negotiations were continued.

A spur was given to the program in September 1941 when Clay Cochran, FSA assistant labor relations adviser, prepared a document regarding the health situation in New Mexico for submittal to his Washington office. A representative of FSA outlined the procedure for securing a subsidy grant at the twentieth meeting of the Taos County project on December 12, 1941.

An intensive educational program was carried on concurrently with the sign-up campaign. Key teachers of the Taos County project were already conducting night schools for adults at various points in the county and their assistance was obtained. Through the regular schools, information was relayed to parents by children. Their efforts were not entirely successful and finally in April 1942, a number of lay individuals were selected from the Taos, Penasco, and Questa areas and local meetings were held. The priests and ministers were drawn in and local clinic committees elected. The membership drive began to take hold. The concentrated campaign for membership, begun in December 1941, continued until June 12, 1942, at which time 653 applications had been received.

On June 25, 1942, after the success of the membership drive had been reasonably assured, a grant agreement was executed between the Taos County Cooperative Health Association and the Farm Security Administration and Articles of Incorporation were filed.

At the first meeting of board of directors, incorporators, and members on July 9, 1942, By-Laws were adopted, a deposit agreement for the grant of \$47,400 was made, and authority was given to open the association bank accounts. A permanent treasurer-manager was appointed July 13, 1942, at the second meeting of the board of directors.

The drive for membership continued and on August 31, 1942, the treasurer-manager reported 900 applications for membership, of which 250 were paid up. FSA supplied a special organizer during July and August, but his efforts were less fruitful than had been anticipated. He reported to the board of directors on August 14, 1942, that the medical program was organized over the county but the cooperation of the people for construction of clinics was lacking.

Services to 907 members commenced on October 1, 1942. Membership rolls were not closed, however, until November 30, 1942, at which time a family membership of 1,145 was reached. Approval of the association budget for the period October 1, 1942, to August 1, 1943, was given October 21, 1942, by the board of directors.

The Taos County Medical Society approved the association's health program on July 16, 1942. One of its members submitted a proposal on July 28 for a detailed health plan. The first meeting of the clinical staff was held September 29. The board of directors adopted the health program at their fifth meeting on October 21.

The mechanics of actually administering the health program occupied a major part of the time of all concerned from October 1942 to January 1943. On January 17, 1943, the State Medical Advisory Committee met in Santa Fe and discussed the association.

It became apparent during January 1943, that the association would have insufficient funds to finish the first full year. FSA was petitioned for additional money on January 23, and a deficiency grant of \$13,155 was made July 17.

In the meantime, on July 9, the membership had held its first annual meeting in Taos at which time a new board of directors was elected. Then on April 17, 1943, the board endorsed an informal request for an environmental sanitation grant and later definite plans for carrying on an environmental sanitation project were made. The budget for the second year of operation was approved on August 21 and adopted October 30 by the board of directors.

Action in the field of social relations is largely dependent upon leadership pursuing desirable ends through organization. The development of an effective cooperative health association would have been impossible had it not been effective leaders who pursued a course of action based on a conscious recognition of needs of the people. Many kinds of leadership, operating at different levels of action, were necessary to actuate a broad health program in Taos County.

Before any approach to the health problem could be made it was necessary that the people recognize a need for improvement. This was brought about by professional leaders. A number of nonprofessional leaders were also helpful. 6/

Through its collection of statistical data on morbidity and mortality the State Department of Health offered facts instead of subjective observation as substantiating data. It may be observed that most of the justification for any program of action in the last analysis has rested upon simple facts dealing with infant and maternal mortality, number of deaths unattended by a physician, and, finally, the number of deaths for which no cause is given.

A research worker in nutrition gave some definition to the health problem in Taos County and, hence, helped to guide the approach. 7/ A young woman with a background of service to the people of the county contributed much to an understanding of the culture.

6/ In his book, "Forgotten People", Dr. Sanchez focused attention on the needs of the Taosenos and at the same time defined the problems. W. A. Onstine, M. D., through a long period of service among the people, was able to interpret their problems and lead them to a recognition of their needs. James Valentine, through intimate knowledge of the needs of the people and his contacts with the "outside world", was able to present the health needs of the people so that outside leadership, such as representatives of the United States Public Health Service and FSA, could be brought to bear. Perhaps the effectiveness of Clay Cochran, who prepared the "Preliminary Docket on Medical Care and Health Education in State of New Mexico", should not be underestimated.

Through the early efforts of the FSA supervisors in initiating a program of medical care among low-income families there came a fuller recognition of the place of modern medical care in complete economic rehabilitation. The County Health Nurse and County Health Nutritionist have carried on effective health education which abetted the association's efforts.

In a culture in which the community assumes a dominant place in social organization, effective local leadership is necessary. Here nonprofessional persons acted as a catalytic of community thought and action. It is highly significant that the most outstanding lay leaders were drawn from at least 12 communities of the county, scattered from Amalia in the north to Chamisal in the south.

7/ See Michel Pijoan, "Certain Nutritional Factors as They Relate to the Health Problem in the Rio Grande Valley", an abstract of a lecture given, typed, 3 p.; "Certain Factors Involved in the Struggle Against Malnutrition and Disease", University of New Mexico Press, Albuquerque, 1943; "Food Availability and Social Function", The New Mexico Quarterly Review, Vol. XII, No. 4, November 1942.

In considering possible courses of action, one of the physicians of the Taos County project, and the treasurer-manager of the association stand out as important leaders. Through the leadership of an adult educator a planning process was set in motion whereby the people of the county were able to meet and discuss problems, solutions, and alternative courses of action. A lay committee composed of members from several communities expedited this step materially.

The selection of a definite course of action required good judgment and a knowledge of local conditions and customs. A detailed plan for a broad health program was submitted by one physician; a Health Service Specialist for FSA outlined an organizational plan based on experience in his organization; and the early attempts to set up a group-health plan in the county were reviewed by two members of the association. The health committee of the Taos County project introduced the requisite lay leadership in this phase.

Finally, after a decision as to a course of action had been made, important additional leadership was introduced. Leadership at the local level was given at Questa, at Penasco, in county and community organization, at Ranchos de Taos, and by all the community leaders who made up local clinic committees.

At the county level, leadership was given by the County FSA supervisors, the County Health Department, the Taos County Medical Society, the board of directors of the Health Association, the Taos County project staff, and "key teachers" of the public school system.

In the upper levels of administrative planning the following leaders should be mentioned:

- (1) State Medical Society - J. E. J. Harris, M. D., President, and Robert O. Brown, M. D., Chairman of Medical Advisory Committee.
- (2) State Dental Society - Michael Berardinelli, D. D. S.
- (3) U. S. Public Health Service - K. E. Miller, M. D., Medical Director, and J. T. Goose, Senior Health Officer.
- (4) State Health Department - James R. Scott, Ph. D., M. D., State Health Officer.
- (5) FSA Regional Office - Jesse Gilmer, Regional Director; A. A. Glenn, Health Service Specialist; and Frank Madrid, Organizer.
- (6) FSA State Office - Glen Grisham, District Supervisor.
- (7) FSA National Office - Fred D. Mott, M. D., Chief Medical Officer.
- (8) U. S. Indian Service - Ralph Shavely, M. D., District Medical Director.

- (9) Others include New Mexico's United States Senators and Representatives; Sarah Bowen, M. D. of Embudo Presbyterian Hospital; Fred Muller, D. D. S.; Harry Ertell, M. D. of Thomas P. Martin Hospital; and A. M. Rosen, M. D., Staff Physician.

During the planning period of the association from May 9, 1941 until July 9, 1942, the most effective organization was the Taos County project. This organization held 13 meetings of its project staff in which the health problems of Taos County were discussed. A health committee of the Taos County project held four committee meetings between June 28, 1941, and August 21, 1941, to make specific plans for organizing the cooperative association. The Taos County Medical Society constantly advised the persons doing the planning.

Between July 9, 1942, and October 1, 1943, the board of directors of the association met 20 times. A regularly called meeting of the board lacked a quorum in only one instance (on May 15, 1943). Two meetings were held in each of 7 months of the 13-month period. The clinical staff met 11 times during this period, 3 meetings were held in June, and 2 in May 1943.

The State Medical Advisory Committee met only once during the first year of operation. The first annual meeting of members was held on July 9, 1943.

SUMMARY OF THE TREASURER-MANAGER'S ANALYSIS OF THE FIRST YEAR'S
OPERATION OF THE TAOS COUNTY COOPERATIVE HEALTH ASSOCIATION

Question I: What mistakes were made in the Taos County Cooperative Health Association and how they could have been avoided.

Obvious mistakes are the following:

- A. Failure to set up educational program for membership, thus failing to create greater cooperative understanding and action.
- B. Failure to provide nursing supervision, thus failing in nursing efficiency.
- C. Failure to provide for relief ambulance drivers and relief clinical aides, thus causing a serious waste of nursing time on non-nursing activities.
- D. Failure to provide for a maintenance supervisor, thus failing to cope with the break-downs of equipment and causing serious difficulties and dissatisfaction among the staff.
- E. Failure to provide adequate professional salaries, thus preventing the engagement of a full professional staff at the beginning, when doctors and dentists were more available than now.
- F. Erection of clinic buildings in wartime, thus making costs higher and difficulties greater because of scarcity of labor and materials.
- G. Failure to emphasize preventive medicine and corrective dentistry, thus failing to work constructively for positive health.
- H. Failure to survey available medical care before starting the program, thus failing to obtain a basis for measuring progress.

It is hard to see how mistake A can ever be wholly avoided in a new program because of the rapid evolution through which each new enterprise must pass. However, the association will soon negate this mistake by the publication of a monthly news letter.

Mistakes B, C, D and E have been largely overcome by providing the various lacks.

Mistake G cannot be overcome until more doctors and dentists are added to the professional staff.

Mistake H cannot be properly set aside until the indicated survey is made, preferably by a non-association and non-governmental agency.

Question II. What difficulties were encountered in the Taos County Cooperative Health Association and how they were overcome, or could be overcome.

Aside from the difficulties created by the mistakes as listed under Question I, we have suffered from:

- I. War shortages, causing inadequate professional staff, lack of trained office help, inability to obtain repair parts, etc.
- J. Closed-staff rule at the Embudo Presbyterian Hospital, which prevents courtesy privileges for our medical staff.
- K. Low ratio of graduate nurses to number of patients at the Holy Cross Hospital, thereby causing membership dissatisfactions and poor service.
- L. Occasional antagonisms of reactionary individuals and groups within the professions, which have thus far reported complaints against the association to official bodies, resulting in two informal investigations of association activities, both of which found the association blameless.
- M. The challenging attitude of the association's medical advisory committee, especially of its representatives from organized medicine, and dentistry, who have consistently denied the need for the association program, and who have not fulfilled their advisory functions for standards of practice and formulary.

Of the above difficulties, none are amenable to direct disposal by the association staff.

Question III. What changes, additions, or improvements are needed by the Taos County Cooperative Health Association to provide adequate medical care, and suggestions for bringing them about?

Needed changes are a bigger and better professional and administrative staff, better hospital facilities, more and better transportation facilities, more laboratory and diagnostic aids, etc. These will be available when peace comes, but not much before.

Question IV. In starting over again, what steps would be taken in organizing the Taos County Cooperative Health Association?

The same procedure as was actually used would be followed, but as many educational and propaganda media as possible would be secured for a sustained promotion until the association had the psychological attributes of a true cooperative. At the same time, the Health Association would be keyed into a comprehensive cooperative program of group farming, purchasing and marketing, credit unions, and producer cooperatives for consumer goods.

Question II. What difficulties were encountered in the last group?
The answer is that the difficulties were not very serious, as could be
seen from the results.

Answer to the question: The results were not very serious, as could be
seen from the results.

I. The results of the investigation were not very serious, as could be
seen from the results.

II. The results of the investigation were not very serious, as could be
seen from the results.

III. The results of the investigation were not very serious, as could be
seen from the results.

IV. The results of the investigation were not very serious, as could be
seen from the results.

V. The results of the investigation were not very serious, as could be
seen from the results.

VI. The results of the investigation were not very serious, as could be
seen from the results.

Question III. What were the results of the investigation?
The answer is that the results were not very serious, as could be
seen from the results.

Answer to the question: The results were not very serious, as could be
seen from the results.

Question IV. In connection with the results of the investigation, what
should be the results of the investigation?

The results of the investigation were not very serious, as could be
seen from the results.



